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## AN ADDRESS TO NORMAL SCHOOL TEACHERS OF ENGLISH

THE child learns his mother tongue by absorption from his environment, and he learns it, and can learn it, in no other way. You may teach him something of his mother tongue, but you cannot do it at all by language lessons; you can do it only as you are yourself a part of his environment, your speech and your personality being in vital connection with his speech and his personality. The English teacher has his chance with the other teachers. He teaches English no more than they do. The teacher whom the boys and girls run to meet, whom they look upon with love and admiration, whom they are anxious to please, and whose voice charms their ear, this is the English teacher, whatever her subject. The admired, loved teacher is a great element in a child's total environment. The cold, formal teacher plays no part in the drama of the child's life, and teaches him no English, though English be her subject, and though she have books of language exercises in which she assigns regular lessons, and please the supervisors by getting classes through the pages of these books at the proper rate.

What I am saying is the simple truth. You cannot ask nature to suspend her laws. You cannot, of set purpose, teach the mother tongue. Nobody, young or old, ever learns any English he does not want, or fails to learn any English he does

want; and every man has his own English, to which you may add by offering him, not words, but thoughts that amuse or worry, and which require words for their expression and retention.

I find in school the differences between pupils as to language to be just as great as the differences in social position and intellectual activity. The long courses in language exercises, which all have had alike, have done apparently nothing at all towards leveling original and inherent distinctions. So of course it must be; I am not surprised. Pupils at school are still learning from their environment, learning what they absorb without knowing it, and the school usually adds little else to the environment than the discipline, a valuable element, of course, but not related to intellectual ambition or speech culture. Books of language exercises are inert and worthless as elements of the child's mental environment. That they are so believed in by our governing bodies destroys my respect for the wisdom of the governing bodies.

The things I am saying seem strange only because they are spoken in a schoolhouse by a teacher to teachers; but they are the things that I read on every hand in the essays of men and women who speak through magazine and newspaper articles. You all know Stanley Hall. Dr. Hall says in the *Outlook*, "the cause of this deterioration" in young persons' English "I think, must be ascribed to the kind and amount of language lessons that have lately come into such prominence. My own opinion is that the vernacular should never be taught, as such, to children, except in the most incidental way, but that conversation and writing about subjects concerning which interest is very strongly aroused is the best way to secure an effective use of English."

You note that President Hall speaks on this matter exactly as I do, only he says "the vernacular should never be taught," and I say the vernacular cannot be taught. The more you attempt to teach the vernacular, the more good energy you waste, and the more obstacles you put in the way of the function of the school of creating for the child an intellectually stimulating environment.

Absolutely you cannot give to the still linguistically unconscious child any language whatever by offering him language as a thing by itself, apart from the spiritual content, the meaning, the thought, which you speak or write. The silly books of language lessons presuppose the child can take an interest in the form of a phrase, in the correctness of it as an analyzable work of art, subject to rules which he, when he talks, must obey. Now my contention may still again be reiterated here, that this presupposition of the language lesson books is philosophically monstrous, because it involves the attempt to fight against nature. There may, or may not, come to the youth a time when an ambition to thrive in the world seizes upon his soul and rouses some of his hitherto dormant faculties. He may, thinking of the figure he cuts in society, begin to question his own speech, to hear himself talk and see himself write. We are familiar with the belated, groping youth who wants a rhetoric, a grammar, to learn his own language. All at once it seems to him he does not know English. He is ridiculed by professors and business men, who ask him where he went to school. And the poor teachers blush with shame and cry *peccavimus*, we have sinned, we will at once proceed to ply our lesson books and our rhetorics with greater vigor and insistence. Professor Hill and scores of professors more make new and improved editions. How can it be that a youngster who has been pushed through Hill can still be guilty of shortcomings in his English?

But the chances are altogether that the youth, whatever elements of self-consciousness he may attain as he advances through puberty and into adult life, will never fairly achieve linguistic self-consciousness and become a critic of his own speech. The school-child remains sundered from that efflorescence of the intellectual life by an enormous, unimaginable interval, which it is utterly impossible to bridge. The rhetoric-maker, the language exercise-maker, fancies he can mediate somehow between scientific rhetoric and grammar on the one hand, and primary instruction on the other, as if there were some mitigated or softened form of science, some sugar-coated form of science, as it were, that could be administered to babes. The objective nature-sciences

are in a very different category from the subjective sciences that require mental introversion and, even at the outset, involve an abstract terminology. There is a lovely botany for children, a zoölogy into which they enter with zest; there is no rhetoric, no grammar for children, into which they enter with zest, or enter, in fact, in any way whatever. For, though you, as a strenuous teacher, insist on attention, and easily get the semblance of it, do you not know that this apparent attention, given in obedience to a demand, is, in truth, a mere image of the real thing, and is, essentially, not attention at all, but a harmful ghost of attention, that stalks through your scholastic rooms, blunting your professional insight, teaching you to acquiesce in forms, reducing your function to formalism and you to a formalist?

The child learns his English unconsciously. His English takes care of itself. As his mind expands, so does his speech. The speech possession is always an exact correlate of the general mental content. If the child's mind does not expand, neither does his English; if his intellect, his heart, make gains, his language also makes gains. Absolutely the only way to affect his English is to affect his mental or spiritual nature. Wayward youth, whose minds dwell wholly on ignoble things, acquire an ignoble English, and, as college students, are still vulgar in expression, showing, in their ignorance or disregard of the courtesies and amenities of speech, their unculture and coarseness, the outcome of lives essentially wilful, that have but ill learned the great lesson of obedience to law. If college students' English is bad, the badness lies far deeper than rhetoric can reach.

The child learns his English solely from contact with his environment. But he learns and forgets the English which he never has occasion to use. At any given time of his adolescent or adult life, he can understand, and can for his own purposes, command, only the English to which he is habituated, just as he can entertain only the thoughts that link themselves to thoughts already consciously possessed by his mind. I cannot read a treatise on quaternions; I have not the requisite English. For everybody the line is drawn somewhere. Where the line is

drawn depends on education, association, natural endowment. We get our English with our education—not with the education that is gauged by examinations, but with the education that becomes organic and vital in our natures and makes us spiritually the persons that we are.

Thus the child's English comes to him with all his intellectual and emotional acquisitions; and without an intellectual or emotional acquisition there comes to him no English at all. We must understand what we mean by an intellectual acquisition. As teachers under supervision and following routine, we assign lessons and hear them recited; and if the recitation is glib, we think our teaching is successful, and we think the child must have added to his stock of knowledge. But we may be sure that no mental assimilation has taken place unless the child dwells on what he has learned, reverts to it spontaneously, grows inquisitive about it, and develops speech with his fellows concerning the matter that is stirring in his mind. This happy issue attends the work of some teachers, and especially of those who have the happy gift of guiding and stimulating the young instincts of collecting, drawing, constructing, writing.

Thus, in one sense, we cannot teach the vernacular at all; and in another sense we cannot avoid teaching the vernacular. Our direct efforts to teach English with books full of detached sentences and lessons about the way we ought to talk and write, are utterly futile, seen to be so by any disinterested observer, obviously doomed to be so by the simplest, most basic axioms of child psychology. The whole formal apparatus of primary and grammar-school English should be swept away, not by any means because it has at length become, but because it always was, in the very nature of things, unphilosophical, irrelevant, impotent.

Would I therefore abolish the English department from our school programs? Not at all. What I would abolish I hope I have made sufficiently plain. That which I would magnify, that to which I would look for positive results, for lasting impressions, for genuine lingual acquisitions, I must now try to set forth.

The child learns his speech primarily through the ear, and will long continue to learn it through no other channel. It

belongs to an advanced stage of culture to learn through the eye, to look up definitions in dictionaries, to examine the relations of words. Few pupils in any grade of school do dictionary work with spontaneity. The word is essentially a spoken thing, a combination of sounds; not a written or printed thing, a combination of visual symbols. The printed word is a sign: it is a sign of a spoken word. The child learns all his language by listening, and is conscious of hearing, not at all the language you employ, but the thought you utter. It is the thought that enters his soul and makes him listen. If he is indifferent to what you say, he simply does not listen, though he may recite it back or write it back by way of examination and qualify himself for your approval. He listens when he applies his eyes and ears to make sure he catches what you say, and fears he may lose what comes next.

First and most important in any grade of school, so far as concerns language-teaching, is *listening*; and the most important professional accomplishment in any teacher is the art of being listened to. This is, in truth, the pedagogic art of arts; and it is but the lowest rudiment of this art to be able to discriminate between the listening that is regular and perfunctory and the listening that really enlists the mind and is the product of curiosity.

I know perfectly well that I am merely serving up old truisms; and I know just how skeptical old teachers are as to the applicability and serviceableness of these familiar contentions. I have not taught all these years, not to know exactly the attitude of what we may call the conventional orthodoxy of our supervision. Again and again I have had to hear, and shall yet hear many times, I doubt not, that our teachers are incompetent, and that ideas that may recommend themselves by a certain specious reasonableness could not possibly be carried into practical effect for lack of intelligence or skill in those whom we laboriously train for the teaching function. I have always considered the urging of this objection as being merely a convenient way of closing the discussion; as much as to say—We do not see the way clear to changing our practice; we have our great system

running with some smoothness, and really do not want to be disturbed : please let us talk about something else.

But let me come back to my subject, which is Listening and being Listened to. What is that supreme qualification of the teacher by virtue of which she provides for herself a genuinely attentive audience—an audience that strains every nerve to hear, and therefore listens to good effect, imbibing now satisfaction for the emotions, now satisfaction for the intellect, and imbibing always as much language as belongs to these satisfactions, because it is their necessary vehicle and investment, by which they find permanent lodgment in the spiritual nature? The question is a large one; you all recognize it as an old one. Every teacher sincerely interested in her work finds that she has to feel her way—she has to draw upon her resources.

Now no teacher can teach any subject whatever, and teach it successfully, without at the same time teaching language ; so that the teacher who has charge of all the subjects taught in a class room, and presides over its discipline, is at every moment a teacher of English, and should be ever conscious of this pedagogic truth. But as special teacher of English, having in her program a period that bears the rubric *English*, she must draw upon a different stock of resources from those she uses in number or science, must go deeper down into her knowledge and experience, and above all must avail herself of all the deposits with which her æsthetic, emotional life has enriched her nature. The English hour makes such drafts upon the spiritual vigor of the teacher who really means to put her soul into her work that it is necessary to relieve an intense listening-exercise by resorting to the utilities, the mechanics, of spoken and written speech, and having exercises in penmanship, spelling and punctuation, things so essential to making a good appearance in the world, how much or how little soever one possesses of the illimitable treasure of English. These things, of course, we will not leave undone. The greatest relief I find after a season of hard mental application is to undertake a piece of drudgery. The ideal school will produce decent spellers, neat users of the pen, correct

users of capitals and small letters. This let me recognize as a matter of course.

But the main thing we have to concern ourselves about is the illimitable treasure of English, of which the child is destined to gain just so much or so little as he gains of knowledge, as he experiences of emotion. Now the great storehouse of language is for us all the literature which lies all about us, which ranges from lullaby to epic, which speaks to every age and every degree, if we will but let it speak. The reading habit is, in truth, the great moral safeguard of life. The habitual reader grows imperceptibly into the possession of a literary, that is, a copious and correct, English. It is for the school to plant the seeds of literary taste, to foster their growth with unremitting care.

Hence I maintain that the prime qualification of the teacher, so far as she is a teacher of English, is an acquaintance with our literature. And I cannot but regard it as the first duty of the Normal School, whatever metaphysics of method it may favor, to devote its energies to exploring the field of child literature, that its graduates may begin at once to try the efficacy of simple verse and moving story upon young minds. What the young women who come to your schools chiefly lack is initiation into the meaning and power of literature; and the main thing for them to acquire, to the extent to which they are going to be teachers of English, is familiarity with a considerable body both of prose and verse. A young woman who has not been much of a reader, but who proposes to teach, must be set to reading, not analytically and learnedly, with studious annotation, but simply, in some quantity, rapidly, with all possible enjoyment, so as to gain a considerable bulk of memorable matter and to receive many and divers impressions.

The Normal School should know what authors and pieces are to be regarded as classic in the educational sense, which will be by no means the same as classic in the usual conventional sense of literary history. The Normal School should have its child library, so as to study, with the apparatus at hand, the satisfactions of the young imagination; so as to discover what

is the stimulus to which children of every age most readily respond. With regard to these matters the normal graduate should have distinct conceptions, knowing the aim of her procedures, possessing a substantial mass of literary acquisition, and knowing how to increase this acquisition by constant research and experiment.

Were I to conduct an examination of a normal graduate professing competency to teach English, I would note the following points :

First, the voice. As the child is to learn all his earliest literature by the ear, and is destined long to continue to learn most of his literature by hearing it, rather than by reading it, the voice to which he has to listen is seen at once to be an element of the teaching function of the most profound importance. The speaking teacher—the listening child; this is the situation. The question is, do the chords in the spiritual nature of the child vibrate in response to the tones of the teacher's voice? Is the teacher's voice sympathetic? Is it flexible, susceptible of modulation, expressing the content of poem or story, so as to interpret, to enhance the significance of the literary work and make it take effect? Anything you undertake to read, whether verse or prose, may, as it were, be killed outright in the utterance, and so be thrown away and wasted, a futile, ridiculous school exercise. There is nothing spoken in the schoolroom, whether in the way of formal reading or of conversation, that may not be spoken well and impressively, and will not, naturally, be so spoken if the teacher preserves the mood of cheerful serenity, is not overcome with a sense of the dignity of her situation, and remains always utterly oblivious of the presence of Mrs. Grundy. I have been present and heard teachers speak to classes in a curiously affected tone that sometimes sounds like that of a ventriloquist, intended to deceive; or it reminds me of the voice assumed by the car-conductors when they announce the streets, as if meant to be official, as becomes the servants of great corporations.

Now I believe it quite possible for the Normal Schools to do something positive and valuable in the way of direct voice

culture. I never heard that any college included vocal training among the requisites for admission. Therefore, of course, such training has no figure in our secondary schools, which have become accustomed to regard the college requirements as the beau ideal of secondary education. But the community makes great demands for vocal culture, and has to get its satisfaction of this demand in the special schools of oratory and reading, which everywhere thrive. These schools, I am convinced, do much good. Very often it happens to me to hear a girl read with special grace, so that her classmates are at once struck with a certain impressiveness in her manner, as by a novel experience, and when I ask her if she has had special training in expression, to be told that she has, in this or that school. The efficacy of training in the use of the voice is quite as great as the efficacy of training in the use of the muscles. I shall not be understood, of course, as meaning that all voices can be trained to one pattern. Voices are as different as characters, but they can be improved by culture as surely as can the intellect or the moral nature. The natural quality or timbre of the voice, by virtue of which it has individuality so that we recognize an acquaintance as quickly by his voice as by his features and figure, will not be leveled to any professional standard. Training is rather to be conceived as a release of the voice from trammels, from habitudes acquired in long association with the commonplace. The life that has known little or nothing of the world of literary expression announces its emotional, its æsthetic poverty in the voice. Your business is to enrich this life. Your psychology contributes its humble quota to this result, far more is accomplished by your science of nature and your history ; but the mainstay of your purely cultural, personality-improving activity, must ever remain literature.

Still imagining myself playing the strange rôle of examiner of a normal graduate applying for a situation as English teacher, I should make it the second point of my inquisition to investigate her *attitude towards poetry*. How does she conceive poetry ; what does she understand it to be ; does she have any appreciation of its enormous historical value ; on what principles does she read

verse; what is her idea of the relative importance, in poetry, of content and form? These things I should determine in but very slight degree by asking formal questions, for it is the upshot of my multifarious experience in teaching that nothing is more apt to miss essential truth than formal examination, and in the examination which I am conducting I do not want to elicit things remembered but to ascertain by the most naïf expressions and revelations the genuine mental and emotional status of my candidate. This she will show in various ways. She will show it chiefly by the way she reads verse, by the verse she selects to read, by her ability to discern poetic motives, to show what motives are the favorites with the poets. Let me emphasize this point. That normal training in literature goes wrong which aims chiefly to accumulate rememberable details, which analyzes and tabulates, making schemes of periods, characteristics, lives of authors. Things rememberable are also things forgettable. A right normal training in literature issues in a status, a condition of culture and taste, which has not much to remember and forget, but which exists and develops, and expresses itself in the life in response to the infinite solicitations of social intercourse and the spontaneous movings of curiosity. This mental state is an indivisible unit, incapable of analysis, quite beyond detection by written examinations. It must express itself, and cannot avoid expressing itself, just as the well-mannered person cannot deport himself badly.

My candidate at once announces her competency or incompetency to teach English by the way she reads verse. If she reads verse well she is pretty sure to read prose well: only I hope she will not read verse as prose or try to read it so, as I perceive many most scholarly teachers are wont to do. I hope she appreciates the value of poetic form, and does not try to obscure the form, the measure, the lilt, the rime, out of deference to the syntax and the coherence of the argument. She will not be asked by me to give the meaning of a poem in prose paraphrase, unless it be by way of punishment for some abysmal blunder. All the ancient listeners to bards and minstrels expected downright song, with time and measure distinctly marked. Their function was

called singing. The mother still sings the child-verse. During the primary years the singing habit fades away. At last the relics of it come to be viewed as ridiculous, and stigmatized as sing-song. Mrs. Grundy now presides over the reading exercise; and she, you know, is the genius and protectress of that exacting ritual which we know under the name of written examinations.

Naturally, holding the opinions I have expressed, I do not expect the normal graduate to remember somebody's definition of poetry. I shall not ask her what poetry is, but I shall give her an opportunity to show what generalizations she may have made of poetic motives and of verse-forms, what observations she may have made of the peculiarities of poetic diction. She need not try to tell me what poetry is, but I shall expect her to mention a few things that it is not. Where comes the distinction between prose and poetry? Is this distinction identical with that between prose and verse? To answer such questions she must have done some thinking and come to some conclusions.

In short, our normal graduate must, with regard to English poetry, be not only intelligent and well-informed, but also susceptible, impressible; and no less must she be capable of expression, she must stand towards her work in the attitude of an artist. Her voice is her instrument: can she play upon it with skill and power?

And now, thirdly, what is our candidate's theory regarding the kind of literature which ought to be given to boys and girls? This is an important matter.

To know what to recommend to children to read, we must observe what it is to which they naturally take. I cannot surmise any better—hardly any other—principle to guide our choice. We teachers greatly restrict our influence by hyper-criticism as to the literary merit and the educative value of books. There are current in society certain strong expressions of contempt for books that grown-up people of culture do not read; for books costing as little as a dime; for books whose covers perhaps are yellow. I find many people whose entire theory of juvenile reading is founded on these wholly unscientific saws. How absurd it looks to the old dyspeptic to see girls eating their

cake, their pickles, their chocolate creams ; and boys munching apple after apple. Is this juvenile appetite vicious, or is it natural ? This I believe, that the duty of the student of childhood is to investigate this appetite and inform the world whether it is depraved. Meanwhile I consider it natural. The child has by nature an appetite for stories ; he listens to them while he is young, and reads them as he grows older. But he wants stories told in the English he knows, or in English only a little larger than his own, and which tell of people in situations he can realize, doing deeds that fire his imagination. I had a good opportunity to note what children like. A young man took charge of the library of one of our numerous institutions in the nature of the college settlements. Once a week the children came flocking to him to get books. They were primary school children, knowing how to read. Their eagerness to get books was intense ; but they knew what they wanted as well as you and I know what we want. Chiefly they wanted fairy stories, or, rather, the girls did ; the boys wanted tales of war and Indians, tales of adventure, such as the Henty books. The interesting thing to note was that they wanted books, and were as anxious to get them as if they lived in a bookless city. The formality of the public library barred them completely. So I find high-school girls unwilling to go to the public library, but eager to borrow of me the current novels. In fact, I think it requires a happy mixture of two or three of the cardinal virtues to become a public library habitué.

Why are the children so bent on getting reading matter ? What does nature mean by giving them this literary appetite ? What is there in the child's constitution that craves the stimulus of fiction ? To answer this question we have but to consider why we want our novels, our poems, our stories of adventure and heroism. Our lives run in narrow channels, our work is confining and monotonous, the people we meet are commonplace, our daily walk and conversation brings us into petty relations with human beings dreadfully like ourselves, who seem to dread strife and collision with social and political evils. Few persons live lives of mere animality ; every one has his discontents, noble or base, his worry, his hopes and beliefs. The prevailing sentiment

being that nothing can be done about it, each accumulates in his soul pent-up aspirations, which he finds no opportunity to express, or perhaps lacks the power to express, being afraid to disturb the delicate poise of his social relations or to jeopard his civil or professional standing. In short, our actual bourgeois life is only one of two lives which we lead. The other is the life of the imagination, wherein we are free, strong, daring, victorious, allied with the powers of reform, crushing the tyrannies that keep down the poor and weak, overcoming all arrogance, all injustice, all superstition. We imagine infinite things that we do not for a moment think of actually doing; in civil society these things cannot be done; for the individual to do them would be to make himself ridiculous and quixotic; for masses of individuals to do them would inaugurate revolution. But everything can be done in fiction. Here we find ourselves in the midst of a seething world. Here is battle; here is no slumbering in ignoble peace. In fiction we find our spiritual outlet. The poetry, the fiction, of the race are as much a legitimate product of its life as are laws and churches. We read fiction because we have ideal cravings; we must have expansion. I see nothing to regret in the enormous preponderance of fiction in our publishers' lists and in the circulation of our libraries. The unhappy critics of the people's reading are fortunately doomed to waste their lamentations. I can hardly conceive a greater social calamity than the utter extinction of fiction from the world, and even any partial repression of it would work far more evil than good. Wholly wise is the system by which the public undertakes to supply its readers, old and young, with fiction.

Now the children have their life of the imagination just as we adults do; only in the children this life is keener, more undisturbed by the misgivings of conventional moralizing about duties, more clamorous for satisfaction, and more easily satisfied. The adult who lives in a whirl of social excitement has his ideal longings in some measure answered and stilled by his association with a brilliant world devoted to refined and elevating pleasures. The children of the bookless home, knowing nothing of the possibilities of the intellectual and the æsthetic life, are

in a state of imaginative hunger. They seek for food to content this hunger with a pitiful eagerness. They are starving, not for knowledge, but for visions. We are coming to know something of the barrenness, the dreariness, the monotony of their spiritual environment. I shall be told of many among them who cannot be got to read. Some want the club, some the theater, some, in spite of school and library, gravitate to the saloon. The world of philanthropy is wrestling with the problem these present. But to the mass of the children who come from bookless homes the school has given the key to literature; we may assume that most children can read and will read with zest books put into their hands that they can understand—books that are fitted to their natures. They are just like you and me. Will you read a heavy, stupid book? Do you acknowledge anybody's right to prescribe your reading? If you do, you are in the state of tutelage. You know what you want, or you know when you find your ideas in an author, when he speaks to you, carries you along with him, enlarges your conceptions, chains your attention. Children, of course, do not criticise. Perhaps you yourself do not criticise, but simply stop reading when the writer grows dull and lets you wander.

From intelligent children there is doubtless something to be learned by direct questioning as to their approval or disapproval of books that we think they ought to like. But the lesson we have to learn about juvenile likes and dislikes, we must, of course, learn by observation. There are certain blossoms on which, in the blooming-time, the bees settle, to the neglect of almost all others. Given free access to a variety of books, what do the children 'light upon?

The books that children choose when their choice is free are the books to put in their way, not, of course, without preliminary examination—for it is conceivable that into a book pleasing to the young, silliness or even immorality should have found entrance. A new book that children take to everywhere is a great gain for education in English. Hence I consider that my normal graduate should take profound interest in observing children, and should be absolutely free from the old prejudice that

nature is an unsafe guide. Who has learned the secret of the readability of a book not merely to children, but to adults of any age? We never know whether a book is readable till we and our contemporaries have tried it. We should try to establish a classical canon, as it were, of children's books; or, rather, we should let the children establish their canon, we serving only as observers, recorders, collectors, and distributors. Towards founding such a canon, the normal schools should endeavor to agree on the principles of selection and rejection. Such a task will require much discussion, frequent conference, and constant intercommunication. What do children like? Are we in the way of speaking contemptuously of children's likings? Do the books that children like appear to us feeble, inane, unnatural? Are not their dolls, their little railway trains, feeble, inane, unnatural? I do not speak as one initiated in the mystery of child-study. About all that you must teach me. I simply ask of this normal graduate, with whom we have played school now quite long enough, whether she is prepared so fully to enter into the child life, as to accept without misgiving the data of observation, and to found on these data her philosophy of juvenile reading.

But it is time that I make a brief résumé of the main points I have endeavored to enforce, and so release your attention, in accordance with a wise pedagogy, from a strain liable to defeat its own ends by insisting on too much.

The child can learn his own language only by absorption from his environment; and we teachers can teach him his own language only by becoming a part of this environment. This absorption goes on unconsciously whenever the conditions favor its action. The first and absolutely essential condition of the absorbing process is that the child be interested. His mind is not receptive unless it be interested. Any educational procedures that profess to have in view the culture of the will by keeping the child under duress and compelling him to perform tasks in which his interest is not enlisted, whatever else they may accomplish, will have absolutely no potency to teach him language. The English teacher must surrender to the Herbartian

interest-principle—must surrender unconditionally and without reservation.

The child must be interested, and the teacher must be interesting. To be interesting, the teacher must possess qualifications both personal and professional. She must begin by having, if possible, a good voice; or, at any rate, a voice trained to its best efficiency. She must understand the emotional elements in prose and verse, and must know how to use her voice in modulation, emphasis and inflection, so as to reproduce in the mind of a listener the emotion which the creative writer, the artist, meant to express. She must be an adept in literary expression. Whatever vocal culture can do for any one should have been done for her.

Then she should know what the good literature is that naturally attracts children, and she should have learned, so far as possible, what are the peculiarities of child-attracting stories and poems, in order that by this study she may, to some extent, read the child's mind, and be also furnished with resources for the English hour. She must observe children, and be ready to digest the result of her observations and to assimilate her conclusions to her pedagogic code.

All her activity must be founded on the cardinal principle of English teaching, that thought and language are inseparable; that language without thought is unthinkable in education; and that what interests the child is always the thought, and never the language.

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## ROMAN CONSTITUTIONAL HISTORY IN OUR HIGH SCHOOLS<sup>1</sup>

I do not propose to suggest any changes in our college-entrance requirements. I make this statement of my negative purpose at the outset, in order to disarm at once opposition from those outside the classical field. I am not going to encroach on their domain. The appeal is to classical teachers, to consider seriously a phase of our work that has heretofore been neglected. That such an appeal will not be in vain, if it commends itself to the judgment of those addressed, is proved by their ready response in past years to suggestions of a similar nature.

How shall we train a student so that he may, in the best way, meet and overcome the difficulties of life after he leaves school? I think it is a fair proposition to assert that the opponents of classical culture must show by something more than *a priori* arguments the superiority of any substitute for what we have been and are now doing by way of answer to this question, before they ask us to accept these substitutes. The general prevalence of Latin as the staple of language instruction in our secondary schools is certainly an exceedingly significant fact. It means, I should say, that it has been found by practical experience to meet our wants in such a way as to satisfy a large number of sensible people. This does not mean that whatever is, is right. It certainly does mean, however, that whatever is, has a reason for its existence, unless, with the pessimist, we are going to take refuge in unreason. I shall take it for granted then, that the pedagogical values of our Latin work in some respects are settled, and after merely calling attention to them shall ask whether a slight addition can be made to them without detracting from the efficacy of what we are now doing.

<sup>1</sup> A paper read at the Classical Conference in connection with the Michigan School-masters' Club, March 30, 1899.

Why are so many people studying and teaching Latin? The answer to this question must take into account both the high-school student who is not going to college and the college-preparatory student. The answer that first springs to our lips is, "for the discipline;" and rightly, too, for this is and ever must be the main object of our work. If what I say in this paper should seem in any way to interfere with this disciplinary aim it would better never have been written or read. No unprejudiced observer can deny that we do get a certain well-defined result from our Latin teaching, and so long as he has daily before his eyes the evidence of such abundant return, no sensible teacher will ever give up the systematic, painstaking study of syntax, or even the much-maligned gerund-grinding.

That the disciplinary effect of Latin training is equally valuable for the boy who goes to college and the one who stays at home, seems to me not to need proof. It is self evident. The painstaking reading of a piece of Latin or Greek, with the nice determination of the shades of meaning of words and the analysis of complex but logical trains of thought, gives that development of the power of accurate observation and keenness of judgment which are equally valuable for the scholar and the business man. One of the most striking proofs that these faculties are developed by language training is that the teachers of the observational sciences are constantly insisting upon some preliminary study of language for their students. As evidence let me cite the two-years requirement in Latin for admission to the B.S. course, a requirement absolutely valueless from the standpoint of the Latinist.

But there is a something or other constantly pressing upon our attention that is called the "practical." I dislike to use the term, for like "natural," "inductive," "liberal," it means a different thing to each individual that uses or hears it. Suppose for our purpose we define it as the something that will have a direct rather than an indirect bearing upon our everyday problems. As a teacher and lover of classical studies I have always — following the tradition of my calling — insisted on the

disciplinary and culture aim of study. But of late years I confess the confidence of my youth in this respect, as in some others, I hope, has begun to yield somewhat to the popular demand that we should bring our subject down from this ethereal region to the level on which most of us are compelled to do our day's work. Discipline is good and culture is good, but aptness in dealing with practical problems is also good. That these elements are sometimes dissevered, no fair-minded observer can deny; that they should be combined, no sensible man can fail to acknowledge. Can we not hold on to our ideals and yet combine with them, in what the philosophers call an organic unity (whatever that may be), the practical also? The college teacher makes a practical demand on the student who comes to him that is very similar to the demand made on the high-school graduate who goes directly to his life work. The professor demands that the student's knowledge shall be coördinated and brought into vital connection with his subsequent work, just as the world demands of the high-school graduate, that his educational training shall have some bearing on his everyday life.

Let me enumerate some of the failures that I have observed in my students to meet this practical demand of the college instructor. To assure the schoolmen that this is not censure of them and their work, I want to say that these criticisms are mainly of the members of the sophomore class who have been for nearly a year under my own instruction, so that the blame is on myself as much as on anyone else. I am sometimes tempted to say that the college student in his sophomore year has no memory, or at least that it is so weakened from lack of exercise, that he utterly refuses to use it, in fact resents as a pedagogical error, any suggestion that it has been given him for a purpose. When I made this querulous remark to the professor of history, he retorted by saying that I, of course, as a classical teacher, might expect to make some demand on the memory of my students. He knew, as a matter of experience, that such a demand on the non-classical student was utterly useless. The experience of each of us indicates that the pedagogical world has gone to the other extreme in its desire to get away from

the old absurd stress on the memory. It is time that we recognize that we are going to an extreme in this direction. To commit to memory mechanically before one understands at all, is absurd; to believe that one has made a subject his own by simply understanding the logical processes involved in it, without fixing the results firmly in mind, is equally fallacious. Now, the simple translation of a piece of text involves an appeal to the memory only within certain comparatively restricted limits. The pupil learns word forms and syntactical relations but does not attempt to hold in mind the content of the work as a whole. The memorizing of grammatical rules is, or should be, completed by the end of the second year and from that time on further demand on the memory is comparatively slight, if we do nothing but translate. Even the memorizing of words as such has fallen into disuse, properly I am inclined to think, but we should have some substitute for it.

This is, however, not the only charge that may be brought against the results of our present methods. The reading of two or three pages of Latin or Greek every day gives the student little training in that very practical, everyday process of picking out the significant things in a mass of material and grouping them in their proper relations. In fact I have found by experience with my advanced classes that some who have been my best students as long as they are kept at mere translation work are quite likely to fail in what at first, *i.e.*, before actual trial, seemed to me a very simple task, namely, to read a book and report on the salient points.

I do not wish to be understood as saying that these shortcomings are peculiar to classically trained students, simply because I take my examples from the only source open to me, my own classes. I do want to insist, however, that because we already do some things well, possibly better than they are done by other methods of training, we have no reason for not recognizing our shortcomings and attempting to correct them, if possible. The responsibility imposed on us in having by far the largest share of the classical student's time in our keeping should stimulate us to increased conscientiousness.

Have we a remedy? Can we teach the classics in such a way as to make more of an appeal to the memory and more of a demand on this power of systematizing knowledge that is unorganized? These two things are really different sides of the same problem. Certainly by insisting upon the increased attention to the memory, I do not mean that a parrot-like ability to recite a list of dates of Roman consuls and emperors is especially desirable, nor, on the other hand, that the mute inglorious Milton who "knows it but can't say it" is an especially commendable individual. The thing that each of us wants in his students is ability to see vital relations, group the subject-matter in accordance with them and last, but not least, present them clearly; and one part of the process is practically useless unless supplemented by the other.

In doing this we must be sure that we do not lose our grasp on what we have already attained. We must not give up the careful reading of a text and the minute study of form and syntax for any *a priori* desirable but untested plan. To quote again from a teacher of history "the advantage that your classical student has over others is that he has learned to do one thing thoroughly well." The training in observation and judgment is accomplished by our present method. Let us hold on to it. The question is, can we not get something else in addition?

I believe the greatest—I am tempted to say the only—improvement in pedagogic method in Latin, during my experience as a teacher, is that embodied in Hale's *The Art of Reading Latin*. But I have seen a good many teachers that were ridden by the method therein outlined, who were carefully upsetting every sentence in the Latin order, a procedure which Hale suggests only in case the Latin words do not have their proper meaning in the minds of the pupils. We have all of us, perhaps, felt ourselves somewhat overtaxed by the necessary corollary of that method, namely, the rigid insistence on correct natural quantity. But when this is looked upon not as an end in itself but as a means to that end, *i. e.*, the acquiring of the ability to read Latin as Latin, the fruitfulness of the method cannot be denied.

I remember that ten years ago there was some doubt expressed by teachers as to whether the time taken in the reading of Latin and the study of quantity wouldn't be subtracted "in toto" from that necessary for the study of the omnipresent subjunctive and "oratio obliqua." Our experience has taught us that this is not so, but, on the contrary, the understanding of what the author is really aiming at, when he is talking indirect discourse, is so much helped by following him continuously in his talk, that our analysis may frequently be dispensed with, and the time required by this process saved. We have in this case lost no time by turning our attention away from the logical processes involved in the study of Latin construction, but have actually helped those processes by putting the greater stress on the practical study of the art of reading Latin. If there are to be further improvements in our Latin pedagogic method, they must be along this line, *i. e.*, not discarding the old and time-tested devices, but supplementing them.

There has been a good deal of talk of late years of "enriching" our classical course. The term is borrowed, I believe, from a report of one of our educational committees. This is admitted by all to be desirable. Can we accomplish it, holding on to what is good in our present methods, and at the same time correct the defects that have been mentioned? I think we can, if we will only turn our attention to that side of Roman life that has the most significance for the modern world. Curiously enough, we seem to have missed this almost entirely in the past. We hear and read a good deal about the charms of Latin literature, as such, and no sane man would deny the value of Virgil, with his dignity of form and tenderness of feeling; of Ovid, with his light and graceful touch; of Cicero, with his majesty of thought and vigor of expression; or even of Caesar, with his sturdy virility. But is this the side of our subject that should be brought into especial prominence? I do not mean, of course, that we should not continue to study Roman literature for its own sake, but I do wish to suggest that we have not turned our attention to what is preëminently the contribution of Rome to the modern world. The Greeks said things better, perhaps, than

they can be said again, but the Romans did things, and their actions and the record of them in their history and institutions are, for us, the most profoundly significant features of their life. If, paraphrasing Boeckh, the aim of Latin study is the ideal reconstruction of Roman civilization, shall we pass by the most striking characteristic of that civilization?

Why have we not seen, and why do we not emphasize, the practical bearing of the experience of the Romans, in the making and governing of their republic, upon our own nineteenth century experiment? Of course we must avoid here the use of superficial and deceptive analogies between the old and the new. The division of Roman constitutional forms into those falling under the three heads of the magistracy, the senate, and the people has had, doubtless, an effect in developing our triune division of governmental institutions, the executive, legislative, and judicial — just how much it would be beyond the scope of this paper to trace out — but as soon as we attempt to push that analogy beyond this fundamental fact we get into some serious difficulties. The recognition, however, that the principle is the same, that a good democratic form of government is one in which there is a proper coördination and subordination of powers, is a fact of comparative constitutional history that is certainly of great value.

If analogies are difficult to make and dangerous to act upon, we have many direct experiments in government made by the Romans, the result of which may be made immediately useful to the practical politician of the end of the century. The wholesale giving of alms, in the form of cheap food, with its inevitable result of pauperizing the proletariat at Rome, and incidentally exhausting the provinces to feed the unproductive city, is likely to show to almost any thoughtful pupil, that our modern experiments along similar lines may not be altogether safe. To go a little further down into the history of the empire, even a cursory study of the utter futility of the edict of Diocletian, fixing prices for commodities, backed up though it was by the whole power of a fully organized despotism, might suggest that similar experiments by a nineteenth-century republic were foredoomed

to failure. To give a more concrete example, the modern political boss with his familiar tricks for thwarting the popular will, while theoretically most subservient to it, may be seen plainly mirrored in the average Roman senator, in his career through the *cursus honorum*, with his manipulation of the *populus Romanus carissimus*. If history does repeat itself, we may conclude that government of the people by the politicians is but a step in the direction of the government of the people by the one "boss," whom the Romans at first euphemistically entitled *princeps*, but afterwards *dominus, divus*.

These practical lessons from Roman political history for the guidance of a boy who is immediately to become a citizen of our modern republic are exactly what the teacher in college asks for as a means of remedying the deficiencies that have been mentioned. A vigorous and not too minute study of Roman constitutional antiquities—Roman civil government, if you please—may be made a valuable training in that larger memory exercise which includes or rather presupposes the proper coördination of a mass of facts in regard to the growth of constitutional forms.

The study of Roman constitutional history has some decided advantages over the claims of a kindred subject in the classical field that is pressing itself upon our attention, namely, the study of private antiquities. In the first place it lends itself more readily to systematic presentation, and for that reason is better adapted to teaching in the high school. Then, the material can be more readily procured. The Roman constitution can be taught well from a good text-book, when we get one, with the supplementary helps of the ordinary Roman histories and dictionaries of antiquities. These are within the reach of all of our high schools; the materials for private antiquities are expensive and not easily procured. Further, the preparation for the teaching of it can more readily be made in this country. The proper teaching of private antiquities almost of necessity presupposes acquaintance at first hand with much material that is not easily accessible on this side of the water. Finally and most important of all, it articulates with our present

classical course much more accurately than does the kindred subject. The attempt of a few years ago to banish Caesar from our course has resulted, as is usually the case in such movements, in a compromise. We keep a portion of the Caesar, but make the transition from the Latin lessons with some book of easy reading. Our classical course is likely to retain as staples this "Reader," then Caesar, Cicero, Virgil. With no one of these does the subject of private antiquities readily ally itself. In the "Reader" the attention of the pupil should not be diverted too much from the forms and syntax. Caesar and Cicero are not by nature well suited to a coördinate study of Roman private life. Virgil, or perhaps Ovid, might be made the vehicle for carrying instruction in this subject. I believe, however, that the advocates of mythology are going to claim the extra time of the fourth year, and I myself feel that we should reserve at least one course in the high school for the study of pure literature. Let us read our Virgil as literature, in the original Latin, and then turn it into the best literary English at our command, and do nothing during this period that will turn the attention of the pupils away from this purely culture object.

On the other hand, one of our stock authors, Cicero, lends himself most readily to this supplementary study of Roman institutions. In fact he cannot be read intelligently without some elementary knowledge of them.

How shall we accomplish this desirable end? I am still old fashioned enough to believe that the ideal teaching, in the elements of a subject at least, is that based on some good text, with proper supplement, to be sure, by teacher and outside reference. Our first difficulty then is lack of a suitable text-book. That this difficulty will soon be remedied, if there is a demand for such a book, nobody will doubt, who knows anything about the enterprise of our friends, the bookmakers. An effort has been made to cover this ground in Tighe's little book on *The Development of the Roman Constitution*, but this has the defects inseparable from any attempt to present so large and complicated a subject in so small a compass. The same may be said with even more force of the various efforts to meet

this demand in the introductions to several of the more recent editions of Cicero's orations. Most of those that I have examined are misleading because of insufficiency of statement of fact. Some are not free from positive misstatements. The subject must be treated seriously, if at all.

Intimately connected with the subject of a suitable text-book is the question as to place in the course. It is here particularly that I look for suggestions or criticisms from members of the club. I believe that an outline of Roman constitutional history can be taught in twenty lessons. It should be given during the Cicero year. That there is a crevice in the course large enough to receive it is certain. It is an almost universal practice in the good schools to read more than the college requirements. The work throughout the course has improved decidedly during the last few years, and the time saved by this improvement in our pedagogical methods should be utilized in the best way possible.

This work in the Roman constitution will not be a real addition to the work now required of students. In fact I am inclined to think that if a short systematic course were given in the subject, early in the Cicero year, the advantage gained in clearness of comprehension of the political and governmental setting of Cicero's speeches would save all the time required for the short course suggested, even within this year.

Finally, there is a future for the subject. That it has so little of a past seems to me rather a surprising anomaly. The reason may be a mechanical one, to a considerable extent at least. Mommsen's *Staatsrecht* and works of a similar nature by Lange, Herzog, Schiller, Willems, Bouché-Leclercq and others were not possible until the *Corpus Inscriptionum Latinarum* was well under way, and this has become an actuality only within the life of this generation. Then, because these books have not been turned into English, although the translation of the *Staatsrecht* was promised us some years ago, their great store of knowledge has never passed much beyond the narrow circle of specialists. If one may judge by the annotations of our texts and the stock articles on Roman institutions in our books of reference, the Latin

scholars, too, have neglected even these excellent secondary authorities on this subject.

It has taken a good many years of the sometimes wearisome reiteration of Freeman and his school to make us realize that there is a real organic connection between the ancient world and the modern, and not a mere tonic, culture influence of the former on the latter. It is certainly time we turned our attention to this subject of Roman Institutions, which brings out so clearly this organic relation of the classical past to our own present. It can be made almost as faithful in suggestions for the student of today as is the study of the English constitution.

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## THE FUNCTION OF THE UNIVERSITY IN THE TRAINING OF SECONDARY TEACHERS.

### I

IN the days when "pedagogue" was a term of reproach rather than of respect, the instruction of the young must have been thought to require only the most mediocre talents. The business of education was founded then, as it is in some measure today, upon the widespread conviction that childhood and youth constituted a sort of period of probationary living during which evil propensities were to be eradicated. Following upon such a theory teaching would consist largely in the suppression of spontaneous activities—in the negation of natural tendencies; and he would be a successful instructor who possessed physical strength sufficient for the discharge of his principal duties. But in the evolution of the race this conception of the function of the teacher has been gradually superseded by another which has already found lodgment in the minds of the majority of intelligent men. Pestalozzi, Froebel, and their disciples vigorously proclaimed a doctrine entirely new in their day—that education must supply suitable nutrition for and so foster intellectual and moral development; it must fashion the character of the individual in the most generous sense, conferring upon him the inclination and the ability to be of efficient service to himself and so to the social whole. That he may be competent to administer the most nourishing mental foods in the proper quantities, at the right season, and suited to the tastes of his children, the teacher should not only have thoroughly mastered the subjects he is to employ but he should have joined to these acquisitions others relating to the native form and constitution of the minds he is to model. He must have studied the being to be taught, as well as the stuff he is to teach, else he cannot happily accomplish the adjustment the one to the other, which alone will make his tuition successful.

The proposal to add human nature studies to academic ones, so-called from ancient times, did not upon first appearance meet

with a cordial greeting from either the educational world or the public outside. It gained a hearing in our own country in Massachusetts in the early part of the nineteenth century, thriving but poorly, however, for a half dozen decades. Throughout this experimental period, though, the virtue of special training for those who were to instruct youth was forcing itself upon the attention of people, and about 1860 it received merited recognition and endorsement in the success of the Oswego Normal School. From this point the doctrines of the new faith spread rapidly in every direction until in our day the belief in the need of professional equipment on the part of the teacher is firmly intrenched in the mind of the civilized world, and the normal school has been established everywhere to carry this idea into practical effect as it relates to the primary and grammar grades of the educational system. Some commonwealths, notably New York, have decreed that no person shall teach in the elementary schools who has not passed a year as the minimum in the study of education, and a plan is already afoot to extend this requisition to instructors in the secondary schools; an omen of much significance, presaging as it does the time not afar off when the school of whatever grade will be regarded as the most potent for good or ill of the social forces, and when only one trained for this particular service in respect alike of scholarship and special knowledge and skill can be intrusted with the tremendous responsibilities of conducting its work.

The view maintained at present by those most competent to form an opinion regards some acquaintance with the history, science, and art of education as essential for teaching alike in the elementary and the secondary school. The Committee of Fifteen reporting upon the training of secondary teachers rightfully declares that "If college graduates are put directly into teaching without special study and training, they will teach as they have been taught. The methods of college professors are not in all cases the best, and if they were, high-school pupils are not to be taught nor disciplined as college students are. . . . Success in teaching depends upon conformity to principles, and these principles are not a part of the mental equipment of every

educated person." But it is well known that teachers in the upper ranks have in the past and do in the present come to their great work little adorned with professional erudition or interest. As Mr. Fitch said a few years since in commenting upon the situation in England, higher grade teachers have the same attitude now toward the study of education that elementary teachers had a century ago.

This unfortunate condition of affairs has been much lamented over in the public prints during the past few years; and what follows as citations from the Report of the Board of Education of Connecticut, made to the general assembly of that state last year after a detailed and painstaking inquiry into the conditions of the high schools, would doubtless be found typical of that which could be made after corresponding investigations in other communities. The report proceeds to say that "graduates of colleges, fresh from their books, apply, fortified with recommendations from the president or professors, purporting to show that the holders have been faithful, have attained a high rank in scholarship, and have traits of character which are sure to make them teachers. . . . The students thus recommended are often really strong in their college subjects, and particularly qualified in some special branch. None of them are acquainted with the philosophy or history of education, and they are not prepared to teach any subject.

"Often new teachers are introduced to supply vacancies. They have not been tested as to what they know and the application of it in teaching. They have not had any practice or training designed to give them a firm and sure grasp on the matters which they pretend to teach. . . . The principals do not wish to be saddled with the care of novices, if they are qualified to guide them. Thus the novices do not have the advantage of observing for a time an experienced teacher, and making a start under his guidance. . . . These beginners obtain, at the expense of the scholars, training in teaching. No other people in the world are so cruel to their children.

"The question whether teachers are giving themselves with true professional pride and energy to the work is not easy to answer. There was sometimes, though not often, exhibition

of the professional enthusiasm and pride which proceeds from genuine appreciation of, and interest in, the subject and the individuals of the classes. In too many cases there was manifest that asperity which results from mistaken notions of dignity or from imperfect digestion.

"In not more than three or four schools was real teaching, as distinguished from examination, found. Usually a lesson is given, consisting of so many pages or so many examples; the recitation hour is occupied in finding out whether this lesson so given has been learned. A lesson in algebra is assigned, say twelve examples on the thirtieth page, and the recitation hour is occupied with finding out whether the scholar has 'done' them. In a recitation in history the lesson consisted in part of the list of Roman emperors in order from Augustus to Trajan, and the only question possible was whether the right succession and the years were correctly given.

"There is no opportunity for skill except in questioning. This questioning, if mere questioning or constant examination be teaching, was often without preparation and aimless. It sometimes hit the mark and sometimes did not. It is always suggestive of the man who went out to kill a bear and hit a calf. There is little evidence of preparation on the lessons. In Latin classes taught by experienced teachers there was evident as much preparation as results from going over a subject year after year; and, if eternal examination on a definite line be teaching, the best teaching was found in the Latin classes."

Thus, without minimizing the unhappy consequences of deficient scholarship, which are indeed serious in some parts of the country, still, regarding things as they at present exist in most places, the chief defect in the preparation of college-trained persons for teaching in the secondary school or beyond is seen to be the almost utter lack of instructional knowledge, interest, and experience under wise criticism, which results too often in there being less genuine teaching in the high school than in any of the grades below it. The situation here depicted is a really serious one, and until remedied by greatly improving the teaching power of college candidates we must continue to have in high-school

positions persons who have not pursued their academic studies beyond the normal school, which, speaking generally, is not at all prepared and does not desire to undertake this advanced work. But even if college students designing to teach had desired to make decent preparation therefor, they could not until recently have found adequate opportunities in universities anywhere, and they can find these even yet in not more than a half dozen institutions, although the facilities in our higher seats of learning for the study of education, particularly in its scientific and concrete aspects, are being multiplied every year, and the number of students availing themselves of these advantages is increasing with marked rapidity. In 1890 there were reported to the Commissioner of Education 3414 students in 114 universities and colleges pursuing courses of study designed for the training of teachers. In 1895 the list of institutions had increased to 192 and the number of students to 6402. In the larger proportion of these cases, however, the educational studies were fragmentary and entirely theoretical, the professor of philosophy frequently discoursing a few times a year in a highly abstract and learned manner upon pedagogical themes, although twenty-seven universities reported having regularly organized departments of pedagogy, with courses of study extending over four years and leading to degrees equivalent to first degrees given in other departments. In a few instances postgraduate courses were offered, and in all attention was paid not alone to the history, theory, and philosophy of education, but methods of instruction and school organization were considered as well.

This developing consciousness of a need for the study of education by secondary teachers and college instructors has led, in recent years, to the establishment of independent schools of pedagogy and normal colleges. While facilities of whatever sort for the training of higher grade teachers are, considering the exigencies of the situation, to be hailed with delight wherever and whenever they make their appearance, yet in view of the needs of those who train young men and women, who should be men among men, in sympathy with the varied interests of the community, broad in culture and catholic in opinion, capable

of taking an important part in social functions and directing social activities—considering these obligations, it seems apparent that the instructor's training should be secured in universities, the home of all activities, the foster-mother of all interests, the best representative of cosmopolitan life. When the teacher's studies are pursued in independent endowments, where he sees and hears nothing but what has concern with his special calling, and where all the minds he comes in contact with are running abreast of one another in the same groove—in such an environment he is only too apt to become a pedagogue indeed, such an one as has supplied Shakespeare, and Swift, and Pope, and many another satirist with the *motif* for some of their keenest jests. It would not be of so much account whether the teacher was cut on a generous or meager plan if it were not that his attitude toward things has such a tremendous, almost immeasurable influence upon the tide of life of rising generations, elevating or depressing as his own is exalted or narrowly limited, instilling into the minds of the young, just and reasonable, or bigoted and erroneous views of varied political and social interests, religion, and the like. And the one effective way to insure breadth in the teacher is to keep him during his formative period in an environment where things are built on generous foundations—the university, which, of all social institutions, is or ought to be, the most liberal and comprehensive.

## II

We need on the part alike of school men and of the public a juster and broader understanding of what educational studies in the university aim to accomplish, and a greater appreciation of their value to the instructor in the secondary school or elsewhere. A professor in one of our great universities recently expressed the opinion that it was not essential, in order to teach science in the high school, that one should have studied the principles and art of education. He urged the argument, that to have mastered the facts to be taught was in itself sufficient to give the candidate power to put them out again into the heads of his pupils—an ancient contention, and one

founded upon a false view alike of the way in which the mind puts off ignorance and adorns itself with knowledge, and of the large purposes of instruction in science or in other disciplines. Further expressions of the professor revealed the fact that he regarded the study of education as consisting of the parrot-like learning of pedagogical theories and devices for teaching, a chimera haunting the minds of many in academic circles even today. The normal schools have doubtless fostered this illusion, since in the indiscreet years of their youth they magnified to such proportions the petty details of schoolroom methods that the foundation principles were in considerable measure obscured. But for the most part these institutions have outgrown this formal stage in their evolution; at any rate the studies which engage the attention of the university student relate in the first instance to the method of human development, seeking to acquire a sort of natural history of the unfolding mind, and to the principles of training growing out therefrom. It is recognized that the process of maturing proceeds according to laws, which should be consulted so far as definitely known, alike in the selection of subjects to be taught and in the order and manner of presenting them. Modern researches in the biological sciences have established the important doctrine that every individual recapitulates physically in sequence, at least in a general way, up to the point occupied by his particular species in the scale of life the principal characteristics of the phylogenetic series; and it has been shown further that certain influences hasten this process, while others retard it, and even prevent the individual in some instances from passing clear through the lower orders, bringing him into life thus unformed, or as we say, deformed. Much evidence from many sources is constraining us in these times to the conviction that the child must reproduce within himself the ancestral record not only physiologically, but he must live through again in some degree, be this great or small, the mental experiences of his predecessors in racial history. And, as in embryological development, untoward influences may lead to arrest in the ascent of the genealogical tree, so in the child's mental growth, we are realizing more forcibly than ever that unwise

treatment may cause him to stop upon some platform lower than that which he was designed by nature to attain. Is it not of supremest consequence that the intending teacher should familiarize himself with these primary laws of development to the extent that they are definitely understood, so that in his training he may have his course guided by them to the greatest possible degree?

And it seems of particular account that the instructor in the secondary school and college should study earnestly the principles of mental development, considering that the epoch in an individual's career occupied substantially by the high school and early college course is marked by the most significant and vital phenomena. So great are the spiritual transformations which are now wrought in the lives of youth that many have regarded these events as constituting in truth a second birth hardly less momentous than the first. There is no people so benighted but that they recognize in adolescence the greatest crisis in the process of maturing; and nature has taught them to fill this period with religious ceremonies and practices which it is hoped will impress the cardinal virtues of courage, honesty, and obedience upon blossoming manhood and womanhood. This is a season of both physical and mental unrest, of incessant change in ideals, of the advent of a great multitude of strange energies and emotions that need the most careful direction, of the ready formation of settled convictions which persist throughout adult life; considering these and other things, how great is the necessity for the keenest insight on the part of those who are charged with the responsibility of guiding lives through this dangerous pass connecting childhood and maturity! Most of us little appreciate how often common sense with its rough-and-ready methods has entailed lasting injury upon the supersensitive lives of adolescent boys and girls. A group of fifty mature university students, many of whom had themselves been teachers, recently wrote detailed reminiscences of their secondary school and early college experiences; and in nearly all of them one may read that instructors often did not understand their pupils; that they were not sympathetic toward them when sympathy would have been

an inestimable blessing. And again, much of the work inspired no interest, and so added little to nor changed the swift current of adolescent life.

What studies and methods of presenting them are best suited to nourish the expanding soul of the adolescent boy and girl so that it may burst its shell of egoism and emerge into the world of altruism? What responsibilities should be laid upon youth at this critical period? How far should natural propensities be indulged, and how may native instincts best be converted into higher spiritual attributes? Are there fundamental differences in individual pupils which manifest themselves particularly at this time, and if so, how should each be dealt with according to his capacities and greatest needs, that we may so fashion his talents as best to promote the well-being of himself and of his fellow-men? What are the mental and physical effects of cerebral fatigue, and what the precautions to be observed regarding it, especially with adolescent students? How shall we direct the silent forces of suggestion, so that they may be incessantly at work heightening rather than depressing the tide of life? These questions and a score of others of first importance press for solution upon every teacher of older as of younger pupils; and how may they be wisely solved by those who have no other basis for judgments than the indefiniteness of common sense and the blindness or tradition and prejudice? Can training in the high school or college ever be made most effective if they who have it in charge are wholly destitute of that special knowledge which alone can give critical and just appreciation of actual situations, and of the use of instrumentalities to effect reform? Has science nothing to contribute to the rational settlement of these, the most important problems affecting the well-being of humanity, individually and collectively? Untutored instinct will pass them all unnoticed for tradition has not accorded them great prominence. It is only after such careful study as is pursued in other departments of science that one's mental vision apprehends these elusive phenomena, and discerns how to deal with them; just as the richest beauties of the flower remain hidden forever to the sight of one untrained

to see them though he has had at his feet for all the years of his life the abundance and profusion of nature.

It needs to be mentioned here, but perhaps not argued, that the candidate for the privilege of instructing youth of any age, having diligently pursued investigations relating to human development and to the science of education founded securely thereupon, should have seen the doctrines he has thus acquired tested and applied in actual practice during his probationary period; not simply look at teaching, it should be said, but study it with such critical analysis as the physicist studies electricity, for instance, or the embryologist studies the phenomena of cell multiplication. He should himself try his hand at this in order that he may be aided by those who have been successful before him, and who may be of service to him by pointing out wherein his practice is not in harmony with his theory and suggesting how improvements may be made. It is surely a crude, sorry way, and one entirely out of harmony with present-day methods in other walks of life, to turn loose upon youth at a time when they need the wisest guidance raw, undisciplined tutors, who it is hoped will ultimately acquire skill by lawless experimentation upon innocent subjects. It is true, of course, that even after elaborate professional study one may not be a fit guide for youth if nature has not been generous in her first gifts to him; but in any event, whether thus favored or not, he will be more efficient in proportion as he has developed and improved upon native endowments.

### III

This thorough study of teaching in all its aspects, which is leading naturally to the instituting of special schools in the universities, will not only insure a more excellent quality of instruction in the higher phases of education; it will in addition exert a beneficial influence upon the whole process of education from start to finish. That the university may be prepared to grapple intelligently with the problems involved in the conduct of the more advanced grades of schooling, it must become acquainted with and devote itself to a solution of those found in the primary grades. In short, it should and will bring to the study of

education as a whole both the results of related sciences and their methods of investigation so far as suited to this special purpose ; and then guided by the light reflected from the history of educational experimentation in the evolution of the race, it will address itself to the task of continually extending and making more definite and certain the principles in view of which the processes of human culture must ever proceed.

When one reflects upon it, one cannot fail to become impressed with the negligence which appears to have been shown in years past respecting this matter. That questions of so great magnitude and importance should be referred for discussion and settlement to untrained and incompetent persons in great part ; that the science dealing with these vital things should consist largely of personal opinions ; that there should be no broad scientific view of education comprehending the process of human development as a whole, and showing how branches of instruction throughout the entire course of training should be related to each other as best ministering to the needs of pupils at particular stages in their progress toward maturity ; that these profound problems which affect the welfare of mankind so tremendously should have been so lightly regarded in the highest seats of learning, is not only a matter for regret but for wonder, especially when one considers that in almost every other field of nature and human nature scientists have been patiently investigating in the universities for a considerable period, and have amassed large bodies of exact data from which the industrial and other arts draw their nourishment. Is it not time that the university should devote a portion of its energy to the investigation in a scientific manner of these educational questions, banishing mere guessing from the pedagogical workshop ?

The events of the last few decades have greatly deepened the conviction, by no means novel, that education, like other things, is in a process of evolution. The most vital transformations have occurred alike in the subjects of instruction and in the modes of presenting them, and at no time have the scenes been shifted so rapidly as they are at the present moment. But this development has gone on quite apart from any influence

from the higher institutions. All that has been done must be credited to individual schoolmasters and to the normal schools. But because of a want of intelligent and sympathetic coöperation from some high authority which should have leisure and opportunity to go deeply into the science and art of education, progress in teaching has not been uninterrupted or uniform in its various departments. There has been no distinctly investigating body, no institution which has been charged expressly with the responsibility of advancing the science upon which education should be based, and experimenting with regard to the application of its principles under particular conditions. But the university school of education now proposes to undertake this neglected work. On the side of theory it aims to search over those sciences that treat of the development of life in any form, and extract such portions as relate to the normal growth of the child. It will survey the various fields of psychological research and gather available contribution from each for a science of educational psychology which shall constitute the secure foundation upon which the method of education shall be built; and which shall also, when supplemented and enriched by broad studies in history, philosophy, ethics, and sociology, determine in a rational manner the materials which shall be employed for the instruction of the child at each stage in his progress through the schools.

And it will not simply glean over, in search for foundation laws and principles, what investigators are discovering in other fields, but it must have distinct problems of its own relating to the determination of the materials and processes of education; and in the study of these it will employ the methods of exact science, so far as these are adapted to the study of phenomena pertaining to human nature. Education is sorely in need of investigations of this character; and unless the university, which is founded to promote all knowledge, can undertake them, where may one look for a benefactor? The normal schools cannot assume the responsibilities of contributing to the science of education in any important sense; circumstances of organization, equipment, and immediate demands from the community require

that they confine their efforts almost wholly to imparting instruction in what is already known. They must look to some source outside themselves for the exploration and elucidation of new truths; then taking these, they will seek to have them realized practically in the schoolrooms of the country, an undertaking of such overwhelming magnitude and consequence that they ought not to be expected or to attempt to do much more.

Again, the scientific study in the university of education in all its aspects will have a reflex influence upon the character and effectiveness of its own instruction. Consider the struggle which is now taking place in the higher seats of learning over the elaboration of a curriculum of studies adapted to the needs of the students who, with varied interests and talents, seek their aid. How shall the intricate problems surrounding such an undertaking be rationally solved? If you consult the specialist in some branch he will magnify the virtues of his own subject until it assumes such proportions that everything else appears in comparison exceedingly diminutive; and he will defend his judgment with such ardor that more often than not a course of study shows in the survival and relative importance of its elements the ratio of fighting powers in their several professors. But there is needed no argument to demonstrate that one who understands algebra or history in its internal relations does not on account of this learning alone comprehend precisely what relative value it has, and so what emphasis it should receive in training youth for the different offices of life. The world now generally recognizes that when judgment is to be passed upon any matter of importance, a specialist must be summoned and his testimony received; mere nonexpert opinion is not rated highly. So in the settlement of the various difficulties respecting the university curriculum and modes of instruction, the school of education should, because of its competency, have an authoritative voice. It should have in its view the whole span of school instruction. It should have studied profoundly into the history of educational practice, tracing the effects upon individual and national life of the manifold systems which have had a trial in the course of the evolution of human society; it should hold in its possession, too, all that

is definitely established respecting the nature of childhood and youth, inquiring especially into the predominant characteristics of the stage which has been reached by the average college student; and it should as a result of such particular study, and with the aid of the specialist, be able to say, with more of justice and reason than has been exercised in the past regarding these matters, what is the comparative worth of mathematics, science, history, and other branches of culture in disciplining the mind in a general and in a particular way, and in fashioning character to a noble model.

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## THE NATURE AND AMOUNT OF BIOLOGICAL WORK THAT CAN PROFITABLY BE ATTEMPTED IN SEC- ONDARY SCHOOLS

THE purpose which the instructor has in mind will determine the "nature" of the biology which he teaches. The purpose of biology in the secondary schools from the writer's point of view can be stated under three heads, which will be named in the order of their importance.

### I. TO DEVELOP A LOVE—OR AT LEAST A LIKING—FOR NATURE

Successful work will invariably depend upon this. Biology is the hardest study on earth to cram down an unwilling throat. Algebra *may* be hammered in, but biology never! It is easy enough to awaken enthusiasm in the pupil—not enthusiasm of the "Oh my" order, that will admire the air-bubbles under a microscope, but enthusiasm that will put life into dry bones and inspire the pupil, which comes only after hard work on his part. The pupil should be made to realize early the dignity of biology and to have respect for it—to realize that, in his own parlance, "it is no snap," for easy acquisitions are not often highly prized. My most beloved teacher was the one who worked me the hardest. To develop in the pupil this appetite for the subject, *variety* should be served. Too much time should not be spent on a single type, because the secondary school is not the place for exhaustive study. The naturalist side should be fostered, and the imagination should not, in the name of science, be frost-bitten.

### II. TO TRAIN THE PUPIL IN THE SCIENTIFIC METHOD

This training should give the pupil independence of books and dependence upon nature. It should cultivate the stone-turning frame of mind which seeks to know what may be on the under side of things. It should develop accuracy in observation, common sense in interpreting those observations, and power to

express conclusions in good straight-forward English. Doubtless the laboratory is the best agent for such a training, but a well-equipped "modern" laboratory is by no means indispensable. Too many conveniences tend sometimes to defeat the very ends which laboratory work has in view. The machinery of demonstration may obscure the demonstration itself. The story of the young biologist who journeyed half way across the British Isles to see Darwin's laboratory, only to be shown a wooden box of dirt, a motley row of bottles, and a broken saucer, points its own moral.

### III. TO IMPART BIOLOGICAL DATA

Much of the misunderstanding between biology teachers and the public arises from the fact that the public at large believes that the acquisition of facts about living things is the prime object of biology, whereas it is the least object. The natural hunger of the human mind for facts will take care of this phase of biology. It is important that one clear general system of classification should be advanced, so that the facts acquired will find proper pigeonholes in the pupil's mind. After the school-days are over, those pigeonholes may gradually be filled in a normal manner. They should not be stuffed with job lots of information in the name of biology. There must be a certain ballast of scientific nomenclature, but woe to the instructor who takes aboard too much of such ballast! Supplementary talks should be given in the nature of excursions from the known to the unknown in the living world; and in these talks should be kept constantly in mind the conception of the organic unity of all biological data. The fundamental theory of the evolution of organic life and an explanation of the process of "natural selection" should surely be unfolded when data enough have been mustered to make it intelligible. I have found that even first-year high-school pupils are keen to appreciate the greater conceptions of biology if they are given the chance.

To summarize thus far: the nature of biology taught should be determined by keeping in mind the fact that most important of all is to develop a love for the subject; next, to train the

pupil in scientific methods of observation and deduction ; and, lastly, to impart to the pupil a certain array of biological facts.

The *amount* of biology that can be practicably undertaken depends largely on the *nature* of it. Of course, more can be done if the pupils like it. The attitude of the instructor's superiors and the grade of the pupils taught are other important factors. The most practical way to indicate the amount of biology which may be profitably attempted will be to outline briefly what we have been doing at the North Division High School with second-year pupils in forty weeks of four single periods each. The conception of the cell in its various forms—the very alphabet of biology—should be gained at the very start. This may perhaps be done best with some small egg, like that of the worm *Ascaris megalocephala*, or of some Echinoderm, rather than with the classical and illusive *Amoeba*. From this typical round cell can be shown theoretically how other cells may be derived by modification ; as, for instance, the elastic muscle cell by stretching it out ; the shingle-like epithelial cell by flattening it ; the bone-cell by thickening its walls ; and the nerve fiber by drawing it out like a telegraph wire. This, of course, necessitates at the outset the mastery of microscopic technique on the pupil's part, at least so far as a low-power objective is concerned.

Under the *Protozoa*, *Paramaecium* and *Vorticella* are good types to use, because they move about and catch the eye directly. When fed with powdered carmine, they show in short order, under a raised coverglass, the process of primitive digestion, and thus introduce the pupil early to the conception that biology is not the study of dead things alone.

Under the *Cælenterates* we have used the small sycon sponge—*Grantia*—with greater success than *Spongilla*. A slide of *Grantia* may be prepared for lens-study by affixing to it, with balsam and without coverglass, a dry rasor-cut cross-section, and near it a longitudinal half of the entire animal cut open, as a sugar melon is prepared for breakfast. From this a clear idea of the sponge plan can be gained, such as *Spongilla* would never give. Coming to *Cnidarian Cælenterates*, we use *Hydra*, both alive

and in balsam preparations, and as supplementary to this, two hydroids—*Pennaria* and *Obelia*, with a hydro-medusa—*Gonionemus*; also by way of demonstration, corals, sea-anemones, medusæ and as many of their wonderful kith and kin as are within reach.

The eccentric *Echinoderms* are valuable as interest-excitors, especially to inland pupils. The classical starfish and the sea-urchin together are excellent material with which to develop ideas of homology and analogy. There is no time, however, for much internal anatomy.

We do not attempt a very exhaustive anatomical acquaintance with the earthworm, but nevertheless we become very good friends with it. Live worms in a glass of soil are given to each pupil and the study of them is directed principally to their activities with enough structure to make things clear. Those pupils who at first are inclined to be squeamish at the idea of handling those "nasty things" are almost always sorry to see the worms go.

The *Arthropoda* demand a considerable length of time, because it is such an extensive and varied branch. The crayfish is a model laboratory animal and, used alive as well as freshly boiled will excite questions that will lead up to a profitable conception of differentiation and adaptation. The internal anatomy, which is so apt, with high-school pupils, to degenerate into sloppy mussing, is avoided. With the insects we take occasion to emphasize the importance of classification in biology, and to that end plan exercises in identification of *orders* (not species), using all the material that we can muster. We have been fortunate enough to have live mosquitoes (by visiting the liquid manure barrels in the greenhouses for eggs) in all the stages of their life cycle, and this is a study that never fails to be of interest and profit.

In the *Mollusca* the clam may be observed alive and studied after being hardened in formulose. Snails may be bred and watched in aquaria, and newly-hatched snails observed under the microscope while their shells are yet so transparent that the heart can be seen to beat.

One day's morphological study of the squid, to show what can be done with the molluscan plan if the shell is discarded, supplements the clam study.

Of all the groups *Vertebrates* are, perhaps, the hardest to teach in secondary schools. Much of this work must be done outside the laboratory. We always wedge in a trip to the museum at the Academy of Sciences, for the mammals, and reference to the "Zoo" in Lincoln Park is repeatedly made. According to our experience the frog is a better type for laboratory work in this important branch than the perch, which is often used, but the study should be begun with living frogs. Incidentally, let me say that fresh perch, left over night in 4 per cent. formulose, lose their fishy smell and are much firmer and pleasanter to handle. We have also had laboratory work on sets of tadpoles of various ages, and on bird skins.

Nowhere do we expect to attempt much internal anatomy, except by demonstration. The place for that, out of respect for popular prejudice, if for no other reason, is for the present beyond the secondary school. Every animal study in the laboratory should be prefaced, whenever possible, by an acquaintance with the living animal. Our science should be *biology*, and it should not degenerate into what has aptly been termed "necrology."

According to our course botany must follow zoölogy. In this part of biology much the same plan is attempted as in zoölogy. The physiological side is emphasized and general bacteriology is not forgotten. *King Chlorophyl* is enthroned at the start, and our allegiance to him made clear. The lower forms are studied long enough to develop clearly the idea of evolution of sex. The analysis and preservation of flowering plants are kept in the background to make room for the more important philosophical consideration of such topics as the relation of animals and plants; the distribution of seed; the devices for cross-fertilization; the defenses of plants against climate and enemies; the influence of soil on plants and plants on soil; the aristocracy of weeds; the struggle for existence, etc. These subjects can be brought out by laboratory work and in the scientific method. For instance, we

made one very interesting and profitable day's study last year on a single square foot of turf and weeds brought in from the alley behind North Division High School.

If a year's work like this is successfully carried out, the result ought to be, not a few specialists, who would have developed in spite of the instructor, but a high average of eye-opened pupils with a desire to learn more, and with some degree of skill in knowing how to know—instead of pupils having that impervious varnish of thinking they have finished the subject.

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## BOOK REVIEWS

*A History of English Romanticism in the Eighteenth Century.* By  
HENRY A. BEERS. (Henry Holt & Co.)

THOSE who are familiar with Professor W. G. Phelps' *The Beginnings of the English Romantic Movement* will be pleased to learn that this admirable little work has been supplemented and rounded out by the scholarly pen of Dr. Henry A. Beers, in a 455 paged volume entitled, *A History of English Romanticism in the Eighteenth Century* (Henry Holt & Co.). The work, which is elegantly bound and printed, marks another of Professor Beer's valuable contributions to the subject of English Literature.

The volume consists in the main of a series of lectures given in Yale College, but they have been revised and adapted to the requirements of the book form. No claim is made that the treatment of the subject is exhaustive for the eighteenth century; but it is, nevertheless, thorough and fairly complete, as the student may rightly expect in a work by this author. The selection and arrangement of the topics are based upon the methods and studies suggested in Professor Phelps' little book on the Romantic Movement. Nothing, perhaps, can give a better idea of the scope and of the scholarly spirit of the work than a short quotation from the first chapter, which is devoted to a careful definition of the little understood term, Romanticism :

To furnish an answer to the question—"What is, or was, romanticism?" or, at least, "What is, or was, English romanticism?"—is one of my main purposes herein, and the reader will be invited to examine a good many literary documents, and to do a certain amount of thinking, before he can form for himself any full and clear notion of the thing. Even then he will hardly find himself prepared to give a dictionary definition of romanticism. There are words which connote so much, which take up into themselves so much of the history of the human mind, that any compendious explanation of their meaning—any definition which is not, at the same time, a rather extended description—must serve little other end than to supply a convenient mark of identification. How can we define in a sentence words like renaissance, philistine, sentimentalism, transcendental, Bohemia, prerafaelite, impressionist, realistic? *Definitis est negatio.* . . . . Nevertheless a rough, working definition may be useful to start with. Romanticism, then, in the

sense in which I shall commonly employ the word, means the reproduction in modern art or literature of the life and thought of the Middle Ages. Pp. 1 and 2.

This thorough and accurate treatment is continued throughout under the following suggestive topics: The Subject Defined, The Augustans, The Spenserians, The Landscape Poets, The Miltonic Group, The School of Warton, The Gothic Revival, Percy and the Ballads, Ossian, Thomas Chatterton, and the German Tributary.

F. D. NICHOLS

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*Outlines of General History.* By FRANK MOORE COLBY, M.A., Professor of Economics, New York University. Half leather, 12mo, 610 pages. Price, \$1.50. American Book Company: New York, Cincinnati, Chicago.

THIS is a solid and useful book, which improves on acquaintance. It is arranged and paragraphed on the familiar text-book plan, with heavy paragraph headings. The author clearly indicates in the preface that his book is written to be learned, not "discussed;" and for those wishing a book of this kind, there is probably no better work on the market. It is a modernized Myers, with some commendable improvements. The selection of topics, while quite similar, is on the whole better and their treatment more connected. The synopsis at the ends of the chapters afford convenient means of review. The maps and illustrations are usually good. The author's resolve "to tell a plain story simple" is most refreshing. The very full index, covering forty-five closely printed pages, is a feature as valuable as it is unusual. There ought to be a law making it at least grand larceny—of other people's time—for a man to publish a book without a thoroughly good index.

It is easy to criticise, and it would not be difficult to find matter for criticism in the present work. Possibly, however, if all critics were sentenced to write better books than those they criticise there would be a dearth of critics. But, barring such an alarming contingency, it seems to the reviewer unfortunate that a more modern plan was not adopted. There is no bibliography—a capital fault, quite inexcusable, and the more annoying because so easily remedied. The style is rather heavy, because the appeal is made too exclusively to the reason. In children, and even those of older growth, the open door to interest

is the imagination. Finally, the matter is too largely conventional political history. This is the more surprising because the author is an economist. If the relation of cause and effect is to be brought out, as the preface announces, the economic side of history must receive greater attention.

Is it accident or intention that the account of modern colonial affairs is so fragmentary? The reviewer would much prefer to see more kings and other notables consigned to oblivion if space must be economized.

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*Latin Literature of the Empire.* Selected and Edited with Revised Texts, and with brief Introduction by ALFRED GUDEMAN, University of Pennsylvania. Harper & Brothers. Vol. I, Prose, 1898. Pp. xi + 578. Vol. II, Poetry, 1899. Pp. ix + 493.

THE two tastefully printed volumes furnish selections from all the writers of any account after the time of Augustus, starting with Seneca Rhetor (the title-page says with Velleius) and Pseudo-Vergiliana, and ending with Boethius and Claudianus. To each group of selections is prefixed a short introduction, seldom more than a page in length, giving facts enough about the author to serve the reader for orientation, and mentioning the best editions and commentaries. A short critical appendix is added to each volume.

Every reader will miss from his favorite author favorite passages and will wonder that others have been included, but he will admit that the selections as a whole are well made, interesting, complete in themselves, and fairly characteristic. They speak volumes for Professor Gudeman's literary taste and the range of his reading. The heaviest part of his task must have been the construction of the text. Here no one man can undertake to follow him, but it may safely be said that if various readings deserve a place in any book of selections, that place is at the bottom of the page and not in the back of the volume.

Whether there is a place for such a work as this among our college text-books is a question that concerns the editor and publishers more than the teachers. Both editor and publishers deserve our heartiest gratitude for having furnished it. Classical scholarship would gather

new vigor if the teachers of Latin in our high schools, fresh from college lectures, but cut off from college libraries and college stimulus, would work their way through these selections, reading in translations the parts of each author that are not given here, and finding perhaps some one of the later and neglected authors of sufficient interest to induce wider and closer study of his works. It is a pity that the strenuous life of the modern university will not allow undergraduates to do the same sort of independent work. But these readers, wherever they are found, will need more help with these selections than translations and lexicons will give, and Professor Gudeman is in duty bound to furnish them with a third volume of commentary.

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*The Teaching Botanist.* A manual of information upon botanical instruction, together with outlines and directions for a comprehensive elementary course. By W. F. GANONG, Ph.D., professor of botany in Smith College. 12mo, pp. xii + 270. Figs. 29. New York: The Macmillan Company, 1899.

HOURS of time and reams of paper have been devoted by college and university teachers to answering the questions of their former pupils and acquaintances who were confronted with the necessity of reorganizing a botanical course in some high school or academy, normal school or college. Such men will welcome the book before us as a distinct boon, because it will enable them to refer inquirers to a book written directly for them, which answers their queries better and more fully than a letter or personal interview could possibly do.

Professor Ganong devotes about half of his space to eight essays on botanical pedagogics. These are all good and their general principles sound. The one on "What botany is of most worth" is especially commended to principals who need guidance in determining the character of the botanical instruction, as well as to teachers who feel at a loss how to use the time to the best advantage. To those schools in which the greater part of a term is still wasted in "analysis" and "making a herbarium," this essay should be sent as a missionary document, if it can reach them in no other way. The essays "On things essential to good botanical teaching," and "On some common errors prejudicial to good botanical teaching," deserve equal praise and wide

reading. It is invidious, however, to specify, when all are so full of valuable suggestions, admirably put.

In the second part of the book Dr. Ganong has worked out a course of laboratory instruction on the lines sketched in his essays. After a useful introduction he presents an outline of work, intended for complete or partial adoption as the conditions of each school make desirable. Or it may serve as model for the teacher in the construction of new outlines of his own. Following the directions to students are remarks on materials necessary and the best ways of using them, together with a full exposition of the pedagogical bearing of the exercises, which teachers will find most suggestive and helpful.

A very few slips, and a very few things which might have been better put if more carefully considered, furnish a slender opportunity for animadversion, but only to a hypercritical reader. On the sound principles of teaching which the author sets forth, some would build a different course of instruction, and this he not only anticipates but suggests. As the most radical departure, we should prefer to present to the student first the great groups of plants, commencing with the simpler ones, holding that the simpler plants are really not more unknown to the average pupil than are the seed-plants; for though he may have seen some of the latter, he really does not *know* them at all.

That the main purpose of botanical teaching is to develop accuracy in observation and reasoning while it impresses the pupil with the variety, plasticity, and vitality of plants, all will agree. That Professor Ganong's book will be a powerful agent in realizing this ideal cannot be doubted. No live teacher of botany will fail to study it carefully.

C. R. BARNES

THE UNIVERSITY OF CHICAGO.

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*Laboratory Exercises in Chemistry.* By NICHOLSON AND AVERY.

New York : Henry Holt & Co., 1899.

IN preparing their manual of experiments the authors had in mind the needs of the average high school. The book contains nothing new either in matter or arrangement. But from the large number of available experiments there have been selected those which illustrate in a simple way the main facts of elementary descriptive chemistry; and a sufficient number of details are given to make the text at once clear and explanatory. Except that the subject of Valence is given a

place more prominent than its importance justifies, and the equation is introduced too early and without experimental foundation we find in the text nothing to criticise. It seems unfortunate, however, that no quantitative work is offered to illustrate the foundation principles of the science, viz., the laws of definite and multiple proportion, the equivalent weights of the metals, etc. The faults of the book lie in what it omits rather than in what it contains.

JAMES H. RANSOM

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*Elementary Studies in Chemistry.* By JOSEPH TORREY, Jr. New York : Henry Holt & Co., 1899.

THIS is the only text-book known to us on elementary chemistry, in the English language, which attempts to present the subject from the modern standpoint. The determination of atomic weights and formulæ is admirably presented both in the text and in the experiments, many of them quantitative, which accompany each chapter. Chemical equilibrium and the theories of solution and electrolysis are introduced naturally and in close touch with the parts which they correlate and explain. The book is unusually accurate, lucid, and coherent. It bears evidence of the experience of the author as a teacher in every line.

The book is probably too extensive for school work, and the first third of it is somewhat difficult both in the experiments suggested and the close reasoning demanded. Perhaps judicious "cuts" would remove both objections. At all events, no teacher of chemistry could fail to benefit by a study of the selection of material and method of presentation adopted.

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## NOTES

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THE high school and college text-books formerly published by Harper & Brothers have been purchased by the American Book Company.

IN their series of careful editions of the French classical masterpieces, D. C. Heath & Co., publishers, Boston, are just issuing Molière's *L'Avare*, prepared with helpful and scholarly introduction and notes by Professor Moritz Levi, of the University of Michigan.

MESSRS. HENRY HOLT & CO., announce for immediate publication Atkinson's *Lessons in Botany* and Barnes' *Outlines of Plant Life*. Both books are simplified and abbreviated editions of well known earlier books by the same authors, and are adapted to the needs of high-school pupils.

GINN & CO. issue a Literary Map of England, prepared by William L. Phelps, which has the counties printed in different colors and contains practically every English town that has distinct literary interest. It is possible that more definite results in literary studies may be obtained by requiring pupils in school and college courses to use this specially prepared map.

WE are in receipt of detailed outlines of the assignments of work in the Latin Department and in the German Department of the Central High School, Cleveland, O. The outlines specify the subjects and pages in the various books and the exact amount of time to be given to composition, memorizing, grammar, translation, etc. Such outlines in a large high school can hardly fail to be of great service.

THE executive committee of the National Educational Association has announced that the meeting for 1900 will be held in Charleston, S. C., July 7 to 13, inclusive. The city of Charleston has already made extensive preparations to entertain the convention. The total attendance at the Los Angeles meeting was 13,656, exceeding the previous largest meeting by 2259. An attendance of 10,000 at the Charleston meeting is anticipated.

IN the Howells number, a new author is added to the Riverside Literature Series. The book is entitled *Doorstep Acquaintance, and Other Sketches* [No. 139], and contains four entertaining sketches well representing the author's varied style. The title sketch and A Romance of Real Life are taken from Suburban Sketches, Tonelli's Marriage is from A Fearful Responsibility, and Other Stories, and At Padua from Italian Journeys. There is a very interesting biographical introduction, and the necessary notes.

IN the International Modern Language Series Ginn & Company have just issued *Trois Contes de Noël*, par Madame Georges Renard, edited by F. Th.

Meylan. These three Christmas carols are selected from *Autour du Leman* and *Autour des Alpes*, two works written by Madame Georges Renard in collaboration with her husband. The selections are in easy French, and this with their brevity and freshness will no doubt commend them to those who are looking for something to take the place of the longer and more difficult texts.

THE Announcement Courses at the Cornell University Summer Session for 1900 contains over eighty separate courses covering a wide range of subjects. It has been found necessary to restrict the attendance on the unique courses in Nature Study offered by Professors Roberts, Bailey, and Comstock to about one hundred persons. We have already called attention in these columns to the excellence of the work in Nature Study done at Cornell University, and evidently the courses are receiving due recognition at the hands of teachers.

THE policy of expansion has already affected educational journalism. We are in receipt of Vol. I, No. 1, *La Escuela Cubana*, edited by Dr. Manuel Valdés Rodríguez, published weekly in Havana. The new journal is fairly well printed and opens with a full-page illustration of Pestalozzi, has a number of plates of Cuban educators, and presents among the advertisements one or two familiar names of American publishers who have already invaded the Cuban book market. The journal has twenty-four small pages and the annual subscription price is \$5, which looks large until we note that it is in silver. The general quality of the articles seems to compare very favorably with those in the majority of our contemporaries.

STATE SUPERINTENDENT L. D. HARVEY, of Wisconsin, has issued an interesting bulletin on Instruction in Agricultural and Domestic Economy in Rural Communities in Wisconsin, and on Transportation of Rural School Pupils at Public Expense. Under the latter caption is printed a paper by Professor Upham, in which has been collected a large amount of material from all the states in the Union which make provision for the transportation of rural pupils. It is interesting to note in this connection that one of the most important experiments in this line has been made in Victoria, Australia, where 241 schools were closed last year by means of consolidation, transportation being provided at public expense for pupils living beyond a certain distance from the union school.

*One Year of Sunday School Lessons for Young Children* is the title of a manual for teachers and parents which has been prepared by Florence N. Palmer, and which The Macmillan Company have just published. Fifty-three lessons are presented, in the form in which they are to be told, or read, to the child. Each lesson is illustrated by a half-toné from a painting by one of the great masters. These stories are arranged under topics or moral principles and those have been chosen which are especially attractive to

children. The aim has been to present a series of lessons that any mother can read or tell to her child, and that will meet the needs, both of trained kindergartners doing Sunday-school work, and of the busy primary teacher who has not the time to prepare Sunday-school lessons along the newer educational lines with which she is in sympathy.

THE *Atlantic Monthly* is publishing and will publish during 1900 some articles of educational interest which are fully equal to any articles in this field that have appeared in that journal. The first installment of the autobiography of W. J. Stillman contains a great deal of retrospective matter concerning a New England boyhood, which is of special interest to students of child development. Walter H. Page will contribute an article on "The Race Problem and Education in the South." Zitkala-Sä (Redbird) a young Indian girl of the Yankton Sioux tribe of the Dakota Indians, who received her education in the east, has written "The Memories of an Indian Childhood," "The Schooldays of an Indian Girl," and "An Indian Teacher among Indians." Professor Albert S. Cook, of Yale University, will write on "Progress in English Instruction," and Professor L. B. R. Briggs has in the March number an exceedingly interesting paper on "Bridging the Gap from School to College."

THE *International Monthly* has been inaugurated with a strong advisory board and with large promise that it will develop into a magazine of contemporary thought of the highest nature. It is peculiarly disappointing, therefore, to see that no recognition whatever is given by it to education as a department of contemporary thought. It is safe to say that no other field interests so large a circle of respectable, if not eminent, thinkers as education, and yet in organizing on a new scale a magazine which should be the best exponent of thought of today, the editor and publishers have excluded this field altogether from their consideration. Such an exclusion betokens a narrowness of view and a crookedness of judgment which may not extend to the conduct of the fields which the magazine does represent, and then again it may. At any rate, such an oversight must naturally make educators suspicious of the new venture. There is an imposing array of names connected with the different departments. (The Macmillan Company.)

CHICAGO is not discouraged by the apparent failure of several recent movements for the reform of the public schools, nor by the fact that these schools are apparently no better off for the attempts made to improve them. A new movement of great importance has recently been inaugurated. The Citizen's Educational Commission, composed of one hundred citizens, representing taxpayers, parents, and teachers, has been organized to study the public school problems of Chicago, and to recommend to the proper authorities, whether legislative or administrative, any reforms it may deem practicable. This commission has divided its work into seven departments, each

in charge of a strong, earnest committee that will devote much time to the work in hand. This commission, in order to attract public interest to its work, held a great mass meeting at Central Music Hall on February 26th, at which President Eliot, of Harvard, President Wheeler, of the University of California, and Professor Butler, of Columbia, made addresses.

**REGENTS' COMMERCIAL COURSE.**—The following commercial course has been registered by the Regents of the University of the State of New York, and any student completing the preliminaries and these studies will receive the state business diploma :

1st year, 4	English first year.	2d year, 2	Business English.
4	Algebra.	1	Business writing.
2	United States history.	2	Civics.
2	Physiology and hygiene.	2	Economics.
—		2	Business arithmetic.
12	counts.	3	Optional counts.
		—	
		12	counts.
3d year, 4	Bookkeeping.	4th year, 3	Stenography (100 words).
2	Typewriting.	2	Commercial law.
2	Business practice and office (methods)	2	Commercial geography.
4	Optional counts.	1	History of commerce.
—		4	Optional counts.
12	counts.	12	counts.

IN response to many requests from normal schools, grade schools, and parents interested in the practical application of modern psychological methods to education, the University of Chicago has undertaken to issue a series of papers describing the work of the University Elementary School. These reports will deal with its general principles, and also indicate in illustrative detail how they are worked out. The monographs will be edited by the Pedagogical Department, with Dr. Dewey as editor-in-chief, and Miss Laura L. Runyon as managing editor. Each number will be divided into two parts, one containing a general article on the work of some one department in all grades, the other a description of the work of individual grades, or groups, in all departments, for a certain length of time. The first number (issued in February) will have, as its special feature, a discussion of Principles of Education Applied to Art, by Miss Cushman, with a report of all the work of the six and seven-year-old children; the next, or March number, Music and Song Composition, by Mrs. Kern (with words and music in full of songs composed by children of different ages), and the work of the eight-year-old children. Succeeding issues, appearing monthly (except during the summer vacation), will deal with Household Work—textiles, sewing, and

cooking ; Geography ; Nature Study ; Experimental Science ; History ; Constructive and Manual Work, etc. Subscription price for the series is \$1.25 ; single numbers may be obtained for 15 cents each.

HIGH SCHOOLS IN MASSACHUSETTS.—From the Sixty-third Report of the Massachusetts State Board of Education, which covers substantially the school year of 1898-9, the following facts of interest in regard to high schools and private schools have been taken.

*High schools.*—The state law now recognizes but one kind or grade of high school, instead of two, as formerly. This high school, to comply with the statute, must conform to the following standard :

1. It must be adequately equipped.
2. It must be taught by a principal and such assistants as may be needed, of competent ability and good morals.
3. It must give instruction in such statutory subjects as it may be deemed expedient to teach, and in such additional subjects as may be required for general culture or for admission to normal schools, technical schools, and colleges.
4. It must maintain one or more courses, at least four years in length.
5. It must be kept forty weeks, exclusive of vacations.

A town may meet a portion of the foregoing requirements in its own high school, provided it meets the rest in outside high schools.

There are 262 high schools in the state, with 1440 teachers—an increase of 56; and 40,003 pupils—an increase of 1870. The ratio of the number of high-school pupils enrolled to the total number enrolled in the public schools is 8.5 per cent. This means that 25 per cent. of the children avail themselves in due season of high-school privileges, the percentage of enjoyment rising in many towns to 30, 40, and even 50. There is a good deal of popular misapprehension about the number of children attending high schools, some people asserting that only 4 or 5 children out of 100, or at the most 8 or 10, ever reach the high school. To throw light on this point, the reduction in membership of three classes in Cambridge and four in Somerville from the lowest primary grade to graduation from the high school has been carefully studied. The facts show that in Cambridge 20 per cent. of the lowest primary class entered the high school and in Somerville 26 per cent., 9 per cent. graduating from the high school in Cambridge and 14 per cent. in Somerville ; or, taking the second primary grade as a basis for computation, which, for many reasons, is fairer, 30 per cent. of this grade entered the high school and 12 per cent. graduated therefrom in Cambridge, the corresponding percentages for Somerville being 38 and 20. The larger the city, the smaller relatively the high-school attendance ; but, whatever it is, it is far larger than popular misapprehension frequently asserts it to be. About 100 of the high schools number from 100 to 1000 pupils each. They enroll 80 per cent. of all high-school pupils. These larger high schools are generally

well officered, well provided with good buildings, and well equipped with sanitary, laboratory, and teaching appliances. Some of the later high-school buildings are superbly planned and furnished.

*Private schools.*—Four hundred and twenty-four private schools were returned, 6 more than the preceding year, with 71,460 pupils—a decrease of 2010. Boston loses 2527, and the rest of the state gains 517. There are 56 incorporated academies in the list of private schools, with 5523 students—a decrease of 294. In 1837, 1 child in 6 attended a private school. Thirty years later, in 1867, the private-school attendance was relatively at its lowest point, including only 1 child in 14. With the establishment of parochial schools, private-school attendance increased, reaching a maximum in 1894, when the ratio was 1 child in 7. Since 1894, private-school attendance has been relatively diminishing, the ratio for 1899 being 1 to 7.6.

**MINNESOTA HIGH SCHOOLS.**—The excellent work of the state inspector of high schools of Minnesota, Mr. George B. Aiton, has been widely recognized. Some idea of the thoroughness with which the state high-school system is organized there may be gained from the following extracts from the rules and regulations of the state high-school board, which are in effect the present year :

#### CONDITIONS REQUISITE TO ACCEPTANCE

The following requirements are in accord with the past experience of the board, and are made with a view to secure conditions which render efficient work practicable and give promise of permanence. The increase of state aid to \$800 justifies great care in admitting schools to the list.

1. A comfortable building providing not less than four grade rooms below the high school, and high-school quarters consisting of at least a main room, a large recitation room, a laboratory, and an office.

2. A well-organized graded school, having not less than four distinct departments below the high school, and including not less than eight years of elementary and grammar school instruction.

3. A well-chosen geographical library for the sixth and seventh grades.

4. An adequate library of American history for eighth-grade work.

5. Suitable wall maps, a globe, and an unabridged dictionary for each of the upper grades.

6. A liberal supply of reading material in sets for each grade.

7. A well-qualified superintendent having general charge of grading, instruction, discipline, and of the care of the building.

8. A liberal schedule of salaries. It is not the policy of the high-school board to prescribe salaries, but in the light of experience the board expresses a want of confidence in the ability of a school to earn the state grant of \$800 without salaries liberal enough to secure the services of a competent superintendent and instructors of approved experience. Experience also demonstrates that towns having a population of less than 1000 people, and an

assessed valuation of less than \$200,000, are seldom justified in undertaking the expense of supporting a state high school.

9. Scholarly classes, well started in at least the first two years of high-school work, with a good prospect of classes to follow in regular succession, to maintain a full four years' course.

#### CONDUCT OF THE SCHOOL

1. Students admitted to the high school shall have satisfactorily completed the common-school branches.

2. Permanent records shall be kept to show where each grade pupil belongs, and what subject each high-school student has completed.

3. The school shall hold sessions of not less than nine months each year.

4. The high school shall be open, free of tuition, to all non-resident pupils, upon passing the examination required by law.

5. The high-school department (including grammar-school students, if necessary) shall be placed in charge of well-qualified assistant.

6. The superintendent of the school shall be provided with an ample recitation room and office, and shall have reasonable time in school hours for general supervision.

7. Boards of education shall adopt a liberal policy in making provision to supply the following library facilities and scientific equipment as rapidly as classes come forward to need them. The amounts named represent the cost of respectable beginnings for small classes: (a) Material in sets for a four years' course in high-school reading, \$50. (b) A botanical or zoölogical outfit of tables, inexpensive dissecting microscopes, one compound microscope, dissecting instruments, glass jars, and alcohol or formalin for preserving material, etc., \$80. (c) Apparatus and equipment adequate to carry on a year's work in physics, as outlined in the manual, \$200. (d) Suitable desks, chemicals, and glassware for a year's work in chemistry, \$90. (e) A working school library for the use of students in the preparation of their daily work. The amounts named below are sufficient, if expended with judgment, to equip the various classes fairly well. It is understood that none of these books are required until classes are formed that need them. It is better to equip the classes one or more at a time, and equip each thoroughly, than to scatter a small appropriation. The principal subjects which require assistance from a working library are: English literature, \$100; general history, \$100; civics, \$40; political economy, \$60; senior American history, \$75; senior geography, physiography, \$50; chemistry, \$30; physics, \$40; zoölogy, \$50; botany, \$75; foreign languages, \$25 each.

8. The board of education of each school shall issue diplomas to those students who shall be certified by the superintendent to have satisfactorily completed the preliminary subjects and the work covered by twelve high-school credits and a four years' course in reading. A year's work in a subject is called a credit.

## TEACHERS' QUALIFICATIONS

1. The superintendent and high-school instructors shall hold professional state certificates of the first class. These certificates are issued by the state superintendent of public instruction on the basis of a written examination, or upon the presentation of a diploma from an institution of higher learning, as provided in Section 3749 of the General Statutes of 1894. To obtain a professional state certificate candidates must have taught with success in the state for at least one year. All candidates not graduates of a full four years' college course adjudged equal to that of the University of Minnesota may obtain the professional certificate by examination only. Examinations under the direction of the state superintendent of public instruction are held by an examining board twice a year—at the State University near the close of the University summer school, in August, and again at the Capitol, in St. Paul, during the Christmas holidays. As stated in rule three, this regulation does not apply to superintendents and high-school instructors who have had successful experience in state high schools previous to the adoption of these regulations. Professional certificates from other states are not accepted.

## NEW PUBLICATIONS

### EDUCATION, PSYCHOLOGY, PHILOSOPHY

One Year of Sunday School Lessons for Young Children. By Florence U. Palmer. Size  $8\frac{1}{4} \times 6\frac{1}{4}$  in.; pp. xvi + 224. Price \$1.00. The Macmillan Company.

College Requirements in English Entrance Examinations. By Rev. Arthur Wentworth Eaton, Cutler School, New York. Size  $7\frac{1}{2} \times 5$  in.; pp. 64. Boston: Ginn & Co.

The Secondary School System of Germany. By Frederick E. Bolton, State Normal School, Milwaukee. Size  $7 \times 5$  in.; pp. xix + 398. International Education Series. D. Appleton & Co.

The Nervous System of the Child. Its Growth and Health in Education. By Francis Warner, M.D. Size  $7\frac{1}{2} \times 5\frac{1}{2}$  in.; pp. xvii + 233. Price \$1.00. The Macmillan Company.

Teacher's Manual. Economics and Industrial History. For Secondary Schools. By Henry W. Thurston, Chicago Normal School. Pamphlet; 25 pages. Chicago: Scott, Foresman & Co.

Picture Study in Elementary Schools. Teacher's Manual. By L. L. W. Wilson. Part I. Primary Grades. Size  $78 \times 5\frac{1}{2}$  in.; pp. xxviii + 297. Price 90 cents. The Macmillan Company.

School Sanitation and Decoration. By Severance Burrage, Purdue University, and Henry Turner Bailey, State Supervisor of Drawing, Massachusetts. Size  $8 \times 5\frac{1}{2}$  in.; pp. xvi + 191. D. C. Heath & Co.

The Psychology of Religion. By Edwin Diller Starbuck, Leland Stanford Junior University. With a Preface by William James, Harvard University. Size  $7\frac{1}{2} \times 5$  in.; pp. xiv + 423. New York: Charles Scribner's Sons.

### ENGLISH LANGUAGE AND LITERATURE

Stories from the Arabian Nights. Selected by Adam Singleton. Size  $7\frac{1}{2} \times 5$  in.; pp. xvi + 248. Price 65 cents. D. Appleton & Co.

Rapid Vertical Penmanship Rational Writing Books. 6 books; pamphlet forms; 24 pages each. Chicago: Werner School Book Company.

First Reader. For use during the First School Year. By Norman Fergus Black. Size  $7\frac{1}{2} \times 6\frac{1}{4}$  in.; pp. 141. Price 30 cents. The Macmillan Company.

Oliver Goldsmith. The Vicar of Wakefield. Edited by R. Adelaide Witham, Latin School, Somerville Mass. Size  $7 \times 5$  in.; pp. 243. Price 40 cents. Boston: Allyn & Bacon.

The Custom House and Main Street. By National Hawthorne. With an Introduction and Notes. Riverside Literature Series. Pamphlet; pp. v + 94. Price 15 cents. Houghton, Mifflin & Co.

Dryden's Palamon and Arcite. Edited with an Introduction and Notes by George M. Marshall, University of Utah. Size  $7\frac{1}{4} \times 5$  in.; pp. 112. Twentieth Century Series. Price 40 cents. D. Appleton & Co.

Lowell's Vision of Sir Launfal and other Poems. Edited with Notes and Introduction by Herbert Bates, Manual Training High School, Brooklyn. Size  $5\frac{3}{4} \times 4\frac{1}{2}$  in.; pp. xlvi + 126. Price 25 cents. The Macmillan Company.

Graded Literature Readers. Edited by Harry Pratt Judson, University of Chicago, and Ida C. Bender, Public Schools, Buffalo, New York. Second Book. Size  $7\frac{1}{4} \times 5$  in.; pp. 192. Price 40 cents. New York: Maynard, Merrill & Co.

Silas Marner. By George Eliot. Edited with an Introduction and Notes by Richard Jones, Vanderbilt University, and J. Rose Colby, Illinois State Normal University. Size  $7\frac{1}{2} \times 5$  in.; pp. 309. Twentieth Century Series. Price 45 cents. D. Appleton & Co.

## GREEK AND LATIN LANGUAGES AND LITERATURES

*Harvard Studies in Classical Philology.* Edited by a Committee of the Classical Instructors of Harvard University. Volume X. Size 9 × 6 in.; pp. 187. Published by Ginn & Co.

*Tacitus de Vita et Moribus Iulii Agricolae.* With Introduction and Notes by Alfred Gudeman, University of Pennsylvania. Size 7½ × 5 in.; pp. xxxvii + 160. Price \$1.00. Boston : Allyn & Bacon.

## MODERN FOREIGN LANGUAGES AND LITERATURES

*Renard Trois Contes de Noel.* Edited by F. Th. Meylan, Bryn Mawr School. Paper cover; 23 pages. Ginn & Co.

*Les Précieuses Ridicules.* Par Molière. With a Biographical Memoir and Explanatory Notes by C. Fontaine, Director of French and Spanish in the Washington, D. C., High Schools. Paper cover; pp. xiii + 60. New York: William R. Jenkins. Sigwalt und Sigridh. Eine nordische Erzählung von Felix Dahn. Edited with an Introduction and Notes by F. G. G. Schmidt, State University of Oregon. Size 6½ × 4½ in.; pp. ix + 72. Price 25 cents. D. C. Heath & Co.

## HISTORY, POLITICS, ECONOMICS

*How Women May Earn a Living.* By Helen Churchill Candee. Size 7 × 5 in.; pp. 342. Price \$1.00. The Macmillan Company.

*Economics and Industrial History.* For Secondary Schools. By Henry W. Thurston, Chicago Normal School. Size 7½ × 5 in.; pp. 300. Price \$1.00. Chicago: Scott, Foresman & Co.

*Handbook of Domestic Science and Household Arts.* For use in Elementary Schools. Edited by Lucy Langdon Williams Wilson, Philadelphia Normal School. Size 7½ × 5¾ in.; pp. xxiii + 407. Price \$1.00. The Macmillan Company.

## SCIENCE

*Physiology.* By Buel P. Colton, Illinois State Normal University. Size 7½ × 5½ in.; pp. x + 386. Price 90 cents. D. C. Heath & Co.

*Elementary Chemistry.* By Albert L. Arey, Rochester (N. Y.) High School. Size 7½ × 5 in.; pp. viii + 271. Price 90 cents. The Macmillan Company.

*Nature's Miracles. Familiar Talks on Science.* By Elisha Gray. Vol. I. World-Building and Life. Size 6½ × 4½ in.; pp. iv + 243. New York: Fords, Howard & Hulbert.

*The Nature and Work of Plants.* By Daniel Trembly MacDougal, Director of the Laboratories, New York Botanical Garden. Size 7½ × 5 in.; pp. xvii + 218. Price 80 cents. The Macmillan Company.

*A Manual of Zoölogy.* By T. Jeffrey Parker, University of Otago, Dunedin, N. Z., and William A. Haswell, University of Sydney, N. S. W. Size 7½ × 5½ in.; pp. xxv + 563. Price \$1.60. New York: The Macmillan Company.

## MATHEMATICS

*Plane Trigonometry.* By Elmer A. Lyman, Michigan State Normal School, and Edwin C. Goddard, University of Michigan. Size 8¾ × 5½ in.; pp. vii + 87. Price \$1.00. Boston: Allyn & Bacon.

## ART

*Picture Study in Elementary Schools.* By L. L. W. Wilson. Pupil's Book II. For Grammar Grades. Size 7½ × 5½ in.; pp. ix + 96. Price 35 cents. The Macmillan Company.

*Picture Study in Elementary Schools.* By L. L. W. Wilson. Pupil's Book I. For Primary Grades. Size 7½ × 5½ in.; pp. ix + 120. Price 35 cents. The Macmillan Company.

*Rembrandt. A collection of Fifteen Pictures and a Portrait of the Painter with Introduction and Interpretation by Estelle M. Hurl. Size 8 × 5½ in.; pp. xvii + 96.* Houghton, Mifflin & Co.

